

In America") It does not take much erudition or knowledge of Constitutional or Parliamentary Law to distinguish those resolutions from the present atrocity. That was a protest for freedom and against tyranny in harmony with our constitutional provision that "the preservation of our liberties can be assured only as this country becomes the Champion of Liberty and the Defender and Protector of all oppressed and downtrodden peoples."

I assure you, my dear Senator, of my profound esteem,

Sincerely yours,

GEORGE C. VOURNAS,
Past Supreme President,
Order of Ahepa, 1942-45.

ORDER FOR RECOGNITION OF SENATOR RIBICOFF ON WEDNESDAY, OCTOBER 20, 1971

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that on Wednesday next immediately following the recognition of the distinguished Senator from Virginia (Mr. BYRD), the distinguished Senator from Connecticut (Mr. RIBICOFF) be recognized for not to exceed 15 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

PROGRAM FOR TUESDAY, OCTOBER 19, 1971

Mr. BYRD of West Virginia. Mr. President, the program for Tuesday is as follows:

The Senate will convene at 11 o'clock a.m. After the recognition of the two leaders under the standing order, the distinguished junior Senator from Missouri (Mr. EAGLETON) will be recognized for not to exceed 15 minutes, following which there will be a period for the transaction of routine morning business for not to exceed 30 minutes, with statements limited therein to 3 minutes.

At the conclusion of the routine morning business, the Senate will resume its consideration of the unfinished business, S. 215, dealing with proposed constitutional conventions.

As the distinguished majority leader stated earlier today, action on that measure will be followed, but not necessarily in the order stated, by S. 748, U.S. contributions to the Fund for Special Operations of the Inter-American Development Bank; S. 2010, increased participation by the United States in the International Development Association; and S. 749, U.S. contributions to the special funds of the Asian Development Bank.

Also, as the majority leader indicated, on next Tuesday, it is very likely that the conference report on H.R. 9844, the Military Construction Act of 1971, may be called up, that being a privileged matter.

The majority leader also stated that a bill which was referred to the Committee on the Judiciary, S. 986, the consumer bill relating to warranties, must be reported today under the order of the Senate. So that is a proposal which will come up next week, and there may very well be amendments and votes in connection therewith. The foreign aid authorization bill may very well be reported from the Committee on Foreign Relations on Wednesday next.

So, Senators are alerted to the possibilities of rollcall votes on Tuesday next and to the active schedule which is ahead for the Senate beginning with Tuesday of next week.

ADJOURNMENT UNTIL TUESDAY, OCTOBER 19, 1971, AT 11 A.M.

Mr. BYRD of West Virginia. Mr. President, if there be no further business to

come before the Senate, I move, in accordance with the previous order, that the Senate stand in adjournment until 11 o'clock a.m. on Tuesday next.

The motion was agreed to; and (at 12 o'clock and 33 minutes p.m.) the Senate adjourned until Tuesday, October 19, 1971, at 11 a.m.

NOMINATIONS

Executive nominations received by the Senate October 15, 1971 (under authority of the order of October 13, 1971):

DEPARTMENT OF JUSTICE

Scott P. Crampton, of Virginia, to be an Assistant Attorney General, vice Johnnie M. Walters, resigned.

CONFIRMATIONS

Executive nominations confirmed by the Senate October 15, 1971:

COMMUNITY DEVELOPMENT CORPORATION

Samuel C. Jackson, of Kansas, to be a member of the board of directors of the Community Development Corp.

NATIONAL CORPORATION FOR HOUSING PARTNERSHIPS

Walter James Hodges, of Virginia, to be a member of the board of directors of the National Corporation for Housing Partnerships for the term expiring October 27, 1972.

WITHDRAWAL

Executive nomination withdrawn from the Senate October 15, 1971:

DIPLOMATIC SERVICE

Michael K. Lyons, of New York, to be a Foreign Service officer of class 8, a consular officer, and a secretary in the diplomatic service of the United States of America, which was sent to the Senate on July 28, 1971.

EXTENSIONS OF REMARKS

IMPORTANT NEW TRANSPORT SYSTEM STARTED IN MORGANTOWN, W. VA.: SECRETARY VOLPE, SENATOR BYRD, GOVERNOR MOORE, AND REPRESENTATIVE STAGGERS SPEAK AT GROUND-BREAKING

HON. JENNINGS RANDOLPH

OF WEST VIRGINIA

IN THE SENATE OF THE UNITED STATES
Friday, October 15, 1971

Mr. RANDOLPH. Mr. President, on October 9 ground was broken in Morgantown, W. Va., to start construction of a new form of transportation facility that I believe will set a precedent for urban transportation throughout our country.

Under sponsorship of the Department of Transportation, a Personal Rapid Transit System will be constructed in Morgantown linking the downtown section of the city and two separate campuses of West Virginia University. This is an innovative program unlike any in the

United States, and I am gratified that the Department of Transportation chose to locate it in a community that will provide a full test of its capabilities.

I was privileged to participate in the groundbreaking ceremonies along with Transportation Secretary John A. Volpe, my colleague from West Virginia, Senator ROBERT C. BYRD, Governor Arch A. Moore, Jr., and Representative HARLEY O. STAGGERS, in whose district Morgantown is located. President James Harlow, of the University, presided.

A comprehensive report of the program was written by John Raymond of the Huntington, W. Va. Herald-Advertiser the following day. His story said, in part:

The three members of the state's congressional delegation were instrumental in obtaining authorization and funding for the project.

Sen. Randolph said Saturday that while \$21.4 million has been appropriated for the system in Fiscal 1972, the overall cost of the project may exceed \$40 million before it is completed in 1976.

In his remarks at the ceremonies Satur-

day, Sen. Randolph said, "It is important that America never stop building," and equated the development of the PRT to the development of the airplane.

He said he believes it will prove to be the answer to the mass transit needs of cities for many years to come and also will be adaptable to many inter-city situations—specifically such areas as Huntington to Charleston.

Gov. Moore gave the welcoming remarks to the distinguished guests and several hundred WVU officials, townspeople and students who attended the ceremonies.

He too, was high in his praise of the project, which he said will focus national attention on West Virginia, and for the cooperation displayed by the congressional officials, WVU and local officials in working out the details of the project.

"This is one more example of progress in our state where we have taken so many strides in the last year to become first in the nation in several areas," said the governor.

"We are indeed on a course of progress and we are in command of our own destiny in West Virginia," the governor asserted.

In their addresses, Secretary Volpe and Senator BYRD reviewed the impor-

tance of this project as a demonstration of our ability to devise and install new transportation systems to improve the mobility of people in urban areas.

I ask unanimous consent that the texts of their remarks be printed in the RECORD.

There being no objection, the texts were ordered to be printed in the RECORD, as follows:

REMARKS BY U.S. SECRETARY OF TRANSPORTATION JOHN A. VOLPE AT THE MORGANTOWN PERSONAL RAPID TRANSIT PROJECT GROUND-BREAKING CEREMONY, MORGANTOWN, W. VA., SATURDAY, OCTOBER 9, 1971

I am delighted to be here—to join so many distinguished, dedicated and concerned people in this landmark ground-breaking ceremony.

Congressman Staggers, who serves his nation so well as Chairman of the Interstate and Foreign Commerce Committee, first called to my attention the great need here for a new type of transportation system. It has also been wonderful to have the support of the two U.S. Senators who are here today.

The Congressman was with us here in Morgantown for the announcement of this project—he is here today—and I am sure he will be here for the official inauguration of service.

West Virginia's two U.S. Senators are also vitally interested in solving the Nation's transportation problems. I have known Senator Jennings Randolph for a quarter of a century—we became acquainted first at meetings of the Associated General Contractors of America. He has long been a leading advocate of expanded mobility for all Americans—he is a gentleman you can be proud of.

I have known Senator Robert Byrd for fewer years, but we have been working together closely for the past year in particular, since he took on the assignment as Chairman of the Appropriations Subcommittee in addition to his duties as majority whip.

Governor Arch Moore is also a friend—I will remember visiting West Virginia back when Arch served in the Congress. Now he is a Governor, as I was. And now, of course, he is Chairman of the National Governors' Conference, a post I was also honored to hold. He is a great governor, doing a tremendous job.

So you can see, my relationship with the Mountaineers State and its leaders is fairly substantial.

I would also like to say a special word about the University of West Virginia and President Harlow.

The University is the cornerstone of this project and Dr. Harlow and Professor Elias have been most helpful and understanding as this first-in-the-Nation project takes shape.

In addition, our people at the Urban Mass Transportation Administration, under the leadership of Administrator Carlos Villarreal, are riding close herd on the Morgantown project. They know the importance of this demonstration. They keep the action moving; they are results-oriented and look forward to this being a pace-setter for the Nation.

And this most certainly can be a pace-setter. The P-R-T (Personal Rapid Transit) System in Morgantown is expected to prove the concept that a safe, automated, virtually pollution-free system is feasible, and can be economically implemented into the nation's urban areas.

The University's decentralization here in Morgantown gives us an ideal demonstration laboratory. With 6,000 faculty and staff, a student body of some 16,000, and a community population of 25,000, we have here a microcosm of a great many urban transportation problems. The university com-

munity encompasses many different people with varying travel needs at varying hours. The system here will serve different people at different times. What is more, the university, the state, the county and the city already hold title to the great majority of the right-of-way that will be used. Very little land need be taken from private ownership.

Also to be noted is the enthusiastic public support we are receiving here in Morgantown. This is a project that will benefit all segments of the community; it will make Morgantown a better place to live, to work, to study. And for us at the Federal level, it offers an unequalled opportunity to demonstrate to the rest of the Nation that there can be—indeed there is—an attractive solution to many of the transportation problems plaguing our cities.

My heartiest congratulations to all involved on this auspicious occasion. To the Federal, State, County, City and university officials; to the contractors and subcontractors; to the designers and engineers; to the working men and women—to everyone: the best of luck as we get underway.

Remember—as you build—that the eyes of the nation are on Morgantown. Remember, as you build, that community leaders from throughout the country will watch Morgantown to determine the applicability of this system as a solution to their problems.

Remember, as you build, that what you will have here is a revolutionary new concept in transportation.

And if you will allow me just one touch of parochialism, I feel it is especially important that ground is being broken here on the very weekend on which this Nation celebrates—for the first time as an official National holiday—the discovery of America by the great Italian navigator, Christopher Columbus. Let the foresight and the vision of Columbus guide you here. May the promise and the hope he held, as he sailed for unknown horizons, also be the promise and hope of the project we inaugurate today.

Again, it is good to be with you. I fully intend to return for that first ride in the first car when the prototype goes into operation.

REMARKS AT GROUND-BREAKING FOR THE MORGANTOWN PERSONAL RAPID TRANSIT SYSTEM BY ROBERT C. BYRD, U.S. SENATOR FROM WEST VIRGINIA

Mr. Secretary, Governor Moore, Senator Randolph, Congressman Staggers, Chancellor Woodward, President Harlow, my good West Virginia citizens and friends, and ladies and gentlemen:

There is a basic desire in man to build. There is in all of us a fundamental desire to take the land on which we live and to change it according to some plan or design—to make it over, to make it different, to make it better than we found it.

I would guess there are almost as many ways of doing this as there are different men, as there are different places with different needs, as there are special opportunities that time and circumstance make available to us. And so it is that a groundbreaking is really a very special occasion, one deserving of a moment or two of serious reflection and thought on what we are doing here and why this particular groundbreaking is of some moment.

In ever so many ways, it would be more interesting, more impressive—and I guess even more fun—to dedicate a newly completed building, or to cut the ribbon on a brand new plant equipped with the latest high-speed machinery to produce a new product.

Even so, I am entirely satisfied that it is as important to take part in a groundbreaking and to put that first shovel in the ground for the first time on a project involving new

equipment and technology—the first of its kind anywhere.

This is especially true when the ground-breaking involves a transportation system such as is being constructed on this very site here in Morgantown.

Today is Day One in the construction timetable of a new type of urban transportation system—a type of system desperately needed in so many of our cities.

I guess we could compare today with that day perhaps a hundred years ago, when several enterprising men in Richmond, Virginia, built the world's first streetcar line; with the invention of the San Francisco cable car, which today carries many thousands of people; because I think successful completion of this new Personal Rapid Transit system here at Morgantown could have a similar and very profound effect on future transportation developments in this country.

I am sure all of us are aware of the tremendous need we have for the development of new methods and systems for moving an ever-increasing number of people in our urban areas. This includes big cities as well as small cities; it includes hospital complexes, industrial centers and university campuses.

The Department of Transportation has underway a series of demonstration projects to research, develop, and demonstrate such new public transportation systems. The Morgantown Personal Rapid Transit system, for which we are breaking ground today, is intended to test the ability of a computer-operated, small car system to move relatively large numbers of people quickly at many different times during the day, and to provide a quality of service more desirable than buses or cars. This project is one part of a total program to develop and test components and systems for the more efficient movement of people in our cities.

As one might imagine, hundreds of proposals have been made in recent years for new urban transportation systems. For the most part, few, if any, completely new total systems have been invented or fully demonstrated as having the design capacity and technical reliability to do the job. It is essential that all system ideas under consideration, but as yet untried, be examined and tested for their technical feasibility and usefulness in a mass transit application.

During the Hearings held before my Transportation Appropriations Subcommittee, I was impressed with the concept of this project, the need to evaluate the impact of a new transit system on a community, the effect on transportation patterns, and the responses of potential riders. The Morgantown site and a university campus location provide a unique urban setting for this demonstration.

The irregular, hilly terrain and narrow, winding streets are unable to accommodate the huge increase in traffic associated with the present and future rapid growth of the University. Cities generally have two peak hour traffic periods—morning and evening. Since classes end every hour, there are as many as eight daily peak hours here—an excellent test bed and challenge for testing and demonstrating new public transit concepts.

It is important not to overlook an additional important dimension of this project. The Morgantown system is not intended to merely provide transportation for students, faculty and visitors to this university campus. It is a demonstration of personal rapid transit system concepts and equipment that when proven successful here can have national application and use in cities all over the country. Morgantown is a test bed for proving out ever so many ideas that have yet to be incorporated into a fully automatic personal rapid transit system.

It goes without saying that a project of this scale and importance already has upon it the imprint of the work of many people. All will agree that the imagination and ingenuity of Dr. Samy Elias of the University of West Virginia faculty has played a singular role in bringing this project to fruition.

Dr. Harlow has played a major role in committing the resources of the University, and Congressman Staggers, my colleague in the Congress, has seen and understood the importance of this project from the very beginning. I can assure you that Senator Randolph and I will watch with great interest the construction of this system and look forward to its operation.

Secretary Volpe has presented and promoted this project, along with many other imaginative and creative research projects in the total Department of Transportation program.

The Senate Appropriations Committee welcomes the opportunity to be fully supportive of projects such as this where they can have such a direct beneficial effect on the general public.

I think groundbreakings are wonderful. I think they are especially wonderful in West Virginia. This is an important day for all of us.

Thank you for letting me visit with you.

TRIBUTES TO THE LATE JAMES G. FULTON

SPEECH OF

HON. JOHN P. SAYLOR

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 7, 1971

Mr. SAYLOR. Mr. Speaker, I would like to include two additional editorials which reminisce very eloquently on our late colleague, JAMES G. FULTON:

[From the New Kensington (Pa.) Valley Daily News/Daily Dispatch, Oct. 14 1971]

AN UNUSUAL POLITICIAN

Rep. James G. Fulton who died last week at 68 was a consummate politician. He served 28 continuous years in the House representing a district—the South Hills of Allegheny County—where the registration is overwhelmingly Democratic; this in spite of the fact that he was Republican.

The secret of his success at the polls in 14 elections is found in his never losing contact with the people of his district. He never forgot his responsibility to them and he gave the same consideration to Democrats that he gave to Republicans. The so-called little fellow had as ready access to him as did the influential. Like him members of his staff were always courteous and eager to serve the needs and requests of his constituents.

Rep. Fulton was an able legislator and was as highly regarded in Washington as in the South Hills. Those who aspire to careers in politics would do well to study and apply his technique. No public official ever goes wrong by remembering that he is a servant and not an overlord of the people. That so many of them somehow fail to recognize this psychological principle is hard to understand.

[From the McKees Rocks Gazette, Oct. 13, 1971]

IN MEMORIAM

Our Congressman is dead! We mourn the death of James Grove Fulton, benefactor and friend to his constituents and to the nation.

Indeed he leaves big shoes to be filled . . . for James Fulton was never too busy for people regardless of race, color, creed or politics. He was never stingy with his time or energy when it came to his fellow man.

How well we remember him as a benefactor and member of the Board of Directors of West Hills Symphony Band. And how he did enjoy the concerts! He was quick to respond to West Hills Community Theatre with both moral and financial support. And even closer to home, we remember his fast reply to the Gazette in supplying U.S. Flags for five of the Sto-Rox District public schools. Anywhere one goes, James Fulton has contributed in the way of a moral or advisory capacity—ever mindful of the needs of mankind whether it be legislation, an inquiry, or a kind word.

We invite you to join us as we bow our heads for a moment of silent prayer in memory of this great man and beseech guidance in choosing a successor.

NEW YORK LAUDS REPRESENTATIVE ROGERS CANCER LEGISLATION EFFORT

HON. WILLIAM S. MOORHEAD

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. MOORHEAD. Mr. Speaker, the New York Times, in its lead editorial Thursday, saluted the work of our colleague from Florida (Mr. ROGERS) in his effort to report legislation that would boost Federal cancer research efforts.

The gentleman has worked very diligently in this regard and it is fitting that the leading newspaper in the Nation acknowledged his leadership.

I would like to introduce this editorial into the RECORD at this time:

[From the New York Times, Thursday, Oct. 14, 1971]

CANCER POLITICS

The effort of Representative Paul G. Rogers to win Congressional approval for a sensible approach toward cancer research has apparently produced panic among the proponents of a rival measure that the Senate passed last summer. Such panic is the only explanation for the high-powered advertising campaign launched by the American Cancer Society in support of the Senate measure.

The Senate last summer was persuaded to establish an essentially separate cancer research agency whose head would report only to the President. The most likely result if the Senate bill became law would be the beginning of the destruction of the National Institutes of Health—probably the world's greatest biomedical research institution. The negative reaction among scientists was summarized in these words by the magazine united the biomedical community as the proposal to remove the National Cancer Institute from N.I.H. . . . No major scientific body, apart from the American Cancer Society, supports the proposal, and numerous organizations from the National Academy of Sciences downward have spoken out against it."

With expert help from the biomedical community, Representative Rogers has fashioned a substitute bill that would safeguard the vast research program of the N.I.H., while permitting greater flexibility for the Institute's efforts against cancer and other diseases. The Rogers bill is far superior to the

one the Senate passed, and the American Cancer Society does the cause of combating cancer no favor by its campaign against the useful Rogers initiative.

THE CASE FOR RUSSIA'S EXPULSION FROM THE U.N. AND THE NEW GULF OF TONKIN RESOLUTION

HON. JOHN R. RARICK

OF LOUISIANA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. RARICK. Mr. Speaker, current events but prove the hypocrisy of the Communist-led power play in the United Nations to oust Nationalist China and seat Red China.

No one has suggested on what grounds Nationalist China can be expelled, what her people or her leaders have done, nor how they have violated the spirit and intent of the United Nations Organization. On the other hand, the warlike activities of Red China in attempting to colonize the world by imperialistic revolution and violence are universally known. The Communist leadership in Red China has done nothing in the cause of peace which would merit their qualification for admission to the United Nations nor offer assurances that they would comply with that organization's proposed objectives of peace if admitted. On the contrary, the activities of the Red Chinese qualify them for expulsion, not admission.

The other Communist power, Red Russia, has successfully exploited the U.N. for her world imperialistic policies while refusing to pay her U.N. dues. While the Nationalist Chinese are threatened with expulsion for being peaceful and threatening no one, the Russians threaten war in two areas of the world. Last week Soviet President Podgorny was in Hanoi where he was quoted by the press as saying:

The Soviet Union supports until total victory the Vietnamese people's patriotic struggle against U.S. aggression on the three fronts—military, political and diplomatic.

In the Middle East, the Soviet Union has supplemented its sophisticated weapons of war by assigning some 20,000 Soviet military personnel including combat pilots.

Yet, in the United Nations, a supposed oracle for peace, only the Nationalist Chinese are threatened with expulsion and no one raises charges against the Soviet Union for expulsion on the grounds of violating the U.N. Charter.

It is inconceivable how any informed person can look at the activities of the U.N. and feel that it is an organization working for peace, unless that peace is Communist style, which is a goal attainable only after all opposition to Communism is destroyed.

I insert a newspaper clipping, a colleague letter, and a proposed House Resolution and the joint communique signed

October 7 by Soviet Russia and North Vietnam:

[From the Washington Post, Sunday, Oct. 10, 1971]

PODGORNY PLEDGES AID TO HANOI UNTIL VICTORY

MOSCOW, Oct. 9.—Soviet President Nikolai V. Podgorny returned home from Hanoi today after pledging to support North Vietnam "until total victory."

A joint statement broadcast by North Vietnam's official news agency a few hours after Podgorny left Hanoi said "The Soviet Union supports until total victory the Vietnamese people's patriotic struggle against U.S. aggression on the three fronts—military, political and diplomatic."

Podgorny also backed Hanoi's demand for complete U.S. withdrawal from Indochina, the broadcast said. The Soviet leader was in North Vietnam Oct. 3-8.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., October 14, 1971.

DEAR COLLEAGUE: We are inviting you to co-sponsor the enclosed proposed House Resolution calling for the shipment of F-4 jet aircraft to Israel in order to maintain the arms balance in the Middle East.

An identical Resolution is being circulated in the Senate; the principal sponsors of which are Senators Symington, Jackson, Talmadge, McGee, Kennedy, Ribicoff, Scott, Javits, Brooke, Percy, Dole, and Gurney.

Continuing Soviet shipments of advanced weaponry and the presence in Egypt of some 20,000 Soviet personnel including combat pilots underscore the immediate need for supplying Israel the means with which to deter Soviet and Arab miscalculation leading to renewed hostilities. Serious negotiations leading to a durable peace settlement are highly unlikely as long as the Arab states hope eventually to defeat Israel militarily.

If you wish to co-sponsor the attached, please call Ext. 5-3531, by Thursday, October 21.

Sincerely yours,

CARL ALBERT.
GERALD R. FORD.
EMANUEL CELLER

H. RES. —

Resolution calling for the shipment of Phantom F-4 aircraft to Israel in order to maintain the arms balance in the Middle East

Whereas, the Soviet Union is continuing to supply additional sophisticated weapons including advanced jet aircraft, and has deployed combat pilots, and other military personnel in Egypt, and other Arab states;

Whereas, these actions have seriously affected the military balance in the Middle East and increase the danger of war; and

Whereas, the aforementioned developments have encouraged certain Arab states to resist peace negotiations and to threaten the resumption of war;

Whereas, this constitutes a grave threat to peace in the Middle East, prejudicial to the vital interests of the United States;

Whereas, the policy of the United States as expressed by the President and the Congress of the U.S. is to maintain the arms balance in this region;

Resolved by the House of Representatives, That—

(1) The United States without further delay should take affirmative action on Israel's pending request for F-4 Phantom aircraft, and provide such supporting equipment and assistance as are essential to maintain Israel's deterrent capability;

(2) The United States Government should oppose any attempts at the United Nations to alter the meaning and effect of Security

Council Resolution 242 of November 22, 1967, and should reaffirm the importance of secure and defensible borders as a vital element in a peace settlement to be negotiated by the parties themselves.

[From: Foreign Broadcast Information Service, Oct. 12, 1971]

PODGORNY-LED DELEGATION ENDS VISIT TO DRV, DEPARTS

At the invitation of the Central Committee of the Vietnam Workers Party and the Government of the Democratic Republic of Vietnam, a Soviet party and government delegation led by Comrade N. V. Podgorny, member of the Political Bureau of the Central Committee of the Communist Party of the Soviet Union, President of the Presidium of the USSR Supreme Soviet, made an official visit to the Democratic Republic of Vietnam from the 3rd to the 8th of October 1971.

During its stay in the Democratic Republic of Vietnam, the Soviet party and government delegation attended the grand meeting held by the people of Hanoi capital city to warmly welcome it, had many meetings with working people and combatants of the Vietnamese People's Armed Forces, visited industrial enterprises and cultural establishments in Hanoi, went to Haiphong and the Quang Ninh mining area, attended the grand inauguration of the first installment of the Thac Ba hydroelectric plant built with Soviet assistance and visited a unit of the Vietnam People's Army. It visited an area which had been affected by floods. During its stay in Hanoi, it visited President Ho Chi Minh's memorial home and laid a wreath at the war dead monument. The Soviet party and government delegation was given an extremely warm and fraternal welcome by the Vietnam Workers Party, the Government of the Democratic Republic of Vietnam and the Vietnamese working people.

The Vietnamese party and government delegation and the Soviet party and government delegation held talks on questions of continuing the friendly cooperation between the Democratic Republic of Vietnam and the Soviet Union, on the situation obtaining in Vietnam and Indochina as a result of continued U.S. aggression on the Indochinese Peninsula; they also examined international problems of common concern.

Participating in the talks on the Vietnamese side were comrades:

Le Duan, first secretary of the Central Committee of the Vietnam Workers Party, head of the delegation;

Truong Chinh, member of the Political Bureau of the Central Committee of the Vietnam Workers Party, chairman of the Standing Committee of the National Assembly of the Democratic Republic of Vietnam;

Pham Van Dong, member of the Political Bureau of the Central Committee of the Vietnam Workers Party, premier of the Democratic Republic of Vietnam;

General Vo Nguyen Giap, member of the Political Bureau of the Central Committee of the Vietnam Workers Party, vice premier and minister of national defense;

Nguyen Duy Trinh, member of the Political Bureau of the Central Committee of the Vietnam Workers Party, vice premier and minister for foreign affairs;

Le Thanh Nghi, member of the Political Bureau of the Central Committee of the Vietnam Workers Party, vice premier;

Nguyen Lam, member of the Central Committee of the Vietnam Workers Party, minister, vice-chairman of the State Planning Commission;

Nguyen Tho Chan, alternate member of the Central Committee of the Vietnam Workers Party, ambassador extraordinary and plenipotentiary of the Democratic Republic

of Vietnam to the Union of Soviet Socialist Republics;

On the Soviet side were comrades:

N. V. Podgorny, member of the Political Bureau of the Central Committee of the Communist Party of the Soviet Union, president of the Presidium of the USSR Supreme Soviet, head of the delegation;

K. T. Mazurov, member of the Political Bureau of the Central Committee of the Communist Party of the Soviet Union, first vice chairman of the USSR Council of Ministers;

K. F. Katushev, secretary of the Central Committee of the Communist Party of the Soviet Union;

N. V. Podgorny, member of the Political Committee of the Communist Party of the Soviet Union, vice-chairman of the USSR Council of Ministers;

S. A. Skachkov, member of the Central Committee of the Communist Party of the Soviet Union, chairman of the State Committee for Economic Relations with Foreign Countries of the USSR Council of Ministers;

S. L. Sokolov, member of the Central Committee of the Communist Party of the Soviet Union, first deputy minister of defence of the Soviet Union, general;

N. P. Firubin, deputy minister of foreign affairs of the Soviet Union;

I. T. Grishin, deputy-minister of foreign trade of the Soviet Union;

I. S. Shcherbakov, member of the Central Auditing Commission of the Communist Party of the Soviet Union, ambassador extraordinary and plenipotentiary of the Soviet Union to the Democratic Republic of Vietnam.

The exchange of views was held in an atmosphere of fraternal friendship, sincerity and comradely open-heartedness. The two sides expressed their unanimity of views on all questions discussed, and decided to carry on the efforts to consolidate and develop the friendship between the Democratic Republic of Vietnam and the Soviet Union on the basis of the principles of Marxism-Leninism and socialist internationalism.

The Democratic Republic of Vietnam and the Soviet Union hold that the present social development is characterized by deep-going revolutionary processes in the world today. The revolutionary forces—the world socialist system, the international working class and the national liberation movement—are firmly holding historic initiatives. The fraternal socialist countries are daily recording new successes in the building of socialism and communism, [and] the role of the world socialist system, the determining factor in the development of human society, is being strengthened. The workers movement in the capitalist countries is developing on a large scale, and gradually rallying around it all toiling people, all progressive strata, but has increasingly weakened the power of state monopoly capital. The national liberation movement of all peoples has grown into a mighty force. The struggle for independence and freedom, for the liquidation of all aftermaths of the colonial past, for the total defeat of the neocolonialist policy of imperialism is gaining in scope and depth in Asia, Africa and Latin America.

At the same time, the present situation also shows that imperialism has not yet given up its designs of barring the way to world-transforming revolutions. It has been desperately striving to oppose the socialist countries and check the class struggle in the capitalist countries. It is perpetrating all kinds of crimes in an attempt to drive back the national liberation movement, and resorting to all kinds of schemes and tricks to establish the order of neocolonialism in Asia, Africa and Latin America. The reactionary imperialist forces are trying to sow division within the anti-imperialist front, among the social-

ist countries and within the international communist and workers movement.

In the international arena, imperialism is taking actions against the interests of the peace and security of the various nations. It is imperialism which is guilty of entertaining hotbeds of war, maintaining and increasing tension in many parts of the world.

The two sides hold that the present international situation is very favourable to the revolutionary struggle of the various peoples. The forces of socialism, national independence, democracy and peace which are markedly mightier than the forces of reaction and war, are launching attacks upon attacks against the fortress of imperialism headed by U.S. imperialism, and foiling its schemes of aggression and war.

For many years now, the U.S. imperialists have unceasingly carried out a policy of intervention and aggression in Vietnam in an attempt to turn the southern zone into a new-type colony and a military base of the United States, and to perpetuate the partition of Vietnam. They have conducted an extremely cruel war of genocide on Vietnamese soil, and piled up monstrous crimes against the people in both zones of Vietnam.

In the face of the upsurge of the Indochinese peoples' anti-imperialist struggle, the United States has obstinately carried on the "Vietnamization" policy and the "Nixon doctrine." It makes Indochinese fight Indochinese, Asians fight Asians. It prolongs, intensifies and expands its aggressive war in South Vietnam, Laos and Cambodia, and keeps taking military actions against the Democratic Republic of Vietnam, a socialist country.

The Vietnamese people in the south, under the glorious banner of the National Front for Liberation and the Provisional Revolutionary Government of the Republic of South Vietnam, have defeated the U.S. strategy of "special war" and are defeated that of "local war."

Following the resounding victories of spring 1968 which have changed the physiognomy of the war in South Vietnam, the South Vietnamese people have launched many offensives and uprisings, defeated step by step the "pacification" policy and inflicted serious setbacks on the "Vietnamization" plan.

The Vietnamese people in the north have defeated the U.S. imperialists' war of destruction and achieved great successes in the building of socialism. The people of North Vietnam have unceasingly heightened their vigilance in a firm resolve to smash all adventurist military actions of the U.S. imperialists. At the same time they strive to strengthen their economic and military potentials to fulfill the obligations incumbent on the great rear area vis-a-vis the great forefront in the south. They wholeheartedly support the fight of the Lao and Cambodian people.

With their tradition of dauntless struggle against foreign aggression, the Vietnamese people are determined to overcome all difficulties and hardships, to persist in, and step up, the patriotic resistance war against U.S. aggression to liberate the south, defend and build the socialist north, proceed to the peaceful reunification of the country, and contribute to the defence of peace in Asia and the world.

The Soviet Union resolutely supports, until total victory, the Vietnamese people's patriotic struggle against U.S. aggression on the three fronts—military, political and diplomatic.

The two sides sternly condemn the U.S. imperialists who have prolonged, intensified and extended the war of aggression in Indochina, and trampled underfoot the Geneva agreements of 1954 on the Indochinese countries and those of 1962 on Laos.

The two sides firmly demand that the United States Government stop its intervention and aggression, withdraw all U.S. troops, military advisers and personnel from South Vietnam, Laos and Cambodia, cease all U.S. military activities in Indochina and let each Indochinese people settle their own affairs, without foreign interference.

The two sides hold that the seven-point proposal presented by the Provisional Revolutionary Government of the Republic of South Vietnam is a logical and reasonable basis for the settlement of the Vietnam problem. The two fundamental problems involved in this proposal are the following: The U.S. Government must put an end to its war of aggression, withdraw rapidly, totally and without conditions all troops, military advisers and personnel, weapons and war materials of the United States and of the other foreign countries in the U.S. camp, from South Vietnam, liquidate the U.S. military bases in South Vietnam; it must stop backing the bellicose group of henchmen now in power headed by dictator Nguyen Van Thieu to pave the way for the formation in Saigon of a new administration standing for peace, independence, neutrality and democracy, and which will show willingness to enter into serious talks with the Provisional Revolutionary Government of the Republic of South Vietnam with a view to setting up a broad government of national accord in South Vietnam.

The two sides fully support the Lao and Cambodian peoples' just struggle against the U.S. imperialists and their henchmen. They support the five-point political solution of the Lao Patriotic Front, and the political programme of the National United Front of Cambodia.

The two sides hold that the struggle of the Vietnamese, Lao and Cambodian peoples is an important, indissoluble part of the revolutionary struggle of the people around the world.

By valiantly defending their national rights, the Vietnamese, Lao and Cambodian people are making historic contributions to the total and final victory of the forces of peace, national independence, democracy and social progress.

Proceeding from the fundamental interests of the struggle for peace, national independence, democracy and socialism, the two sides stressed the need for strengthening the solid friendship and cooperation among the fraternal socialist countries, and are resolving to contribute with all their forces to the restoration and consolidation of the solidarity among the socialist countries, among the communist and workers parties, the basis of Marxism-Leninism and proletarian internationalism.

The Democratic Republic of Vietnam and the Soviet Union declare support for the strength of the European socialist countries to consolidate the gains of the anti-fascist world and to achieve a development in line with the trends of the times, for the sake of peace and security in Europe, by way of making an important contribution to the cause of world peace. The two sides hold that the continuous consolidation of the socialist countries' strength in all respects constitutes the most decisive factor for victory in this struggle. The two sides hold that the agreement concluded between the Soviet Union and the Federal Republic of Germany, between the Polish People's Republic and the Federal Republic of Germany, the quadripartite agreement on West Berlin assert the inviolability of the frontiers between European countries, enhance the international position of the German Democratic Republic, and create a premise for the establishment of relations on an equal footing between all countries and the German Democratic Re-

public according to international law, and positively contribute to the defense, peace and security in Europe.

The two sides resolutely struggle for the restoration of the legitimate rights of People's Republic of China in the United Nations and the expulsion of the Chiang Kai-shek clique from that organization.

The two sides strongly condemn the imperialists' unceasing provocations against the Democratic People's Republic of Korea. They declare full support for the eight-point program of the Government of the Democratic People's Republic of Korea for peaceful reunification of the country.

The two sides resolutely support the Cuban people's struggle in defence of the security and sovereignty of the Republic of Cuba.

The two sides express their solidarity with the Arab peoples. They firmly demand the liquidation of the aftermath of the Israeli aggression, the complete withdrawal of the Israeli armed forces from the occupied Arab territories, the restoration of legitimate rights of the Palestinian Arab people.

The Democratic Republic of Vietnam and the Soviet Union express their solidarity with the struggle of the Asian, African and Latin American peoples against imperialism, colonialism and neo-colonialism, for the independence, honour and freedom of their countries, and for the right to freely choose their way of social development.

The Democratic Republic of Vietnam and the Soviet Union hold that the pressing international problems should be settled in keeping with the fundamental national aspirations of the various peoples.

Founded on a community of social regime and ideal, the cordial friendship and multi-form co-operation between the Democratic Republic of Vietnam and the Soviet Union are in keeping with the fundamental aspirations of the Vietnamese and Soviet peoples. The friendship of deeply popular character between Vietnam and the Soviet Union and the relations between the Vietnam Workers Party and the Communist Party of the Soviet Union are based on Marxism-Leninism and proletarian internationalism.

On behalf of the Central Committee of the Communist Party of the Soviet Union, the Presidium of the USSR Supreme Soviet, the USSR Council of Ministers and the entire Soviet people, the Soviet party and government delegation expressed its admiration for the Vietnamese people's heroic struggle for the independence and freedom of the fatherland, against the U.S. aggressors and their accomplices. The word "Vietnam" has come to be a synonym of tenacity, gallantry, self-abnegation and revolutionary heroism.

Acting upon the testament of President Ho Chi Minh, an eminent international revolutionary, their venerated leader, the Vietnamese people are winning prodigious victories in the irrisistable war against the U.S. aggressors as well as in the building of socialism. Their historic feats of arms accomplished under the leadership of the Vietnam Workers Party strongly encourage the liberation movement of the various peoples.

The Communist Party of the Soviet Union, the entire Soviet people affirm their unshakable determination always to extend to the Vietnamese people their support and assistance in the patriotic struggle against U.S. aggression, and in the development and consolidation of the socialist gains of the Democratic Republic of Vietnam. The Soviet Union has been standing and will stand at the sides of fighting Vietnam, of the heroic Vietnamese people.

The Vietnam Workers Party, the Government of the Democratic Republic of Vietnam and the Vietnamese people always remember that the Communist Party, the Government and the fraternal people of the Soviet Union

have extended to the Vietnamese people a powerful support, an important, multifaceted and effective aid in their past resistance against the French colonialists as well as in the present resistance against U.S. aggression, for national salvation and in the building of socialism. The strong political support that has found a concentrated expression in the appeal of the 24th Congress of the Communist Party of the Soviet Union in support of the struggle of the Vietnamese people, of the Indochinese peoples against U.S. aggression, as well as the great assistance that the Soviet party and government have extended to the Vietnamese people over the past years in the economic and military fields, in terms of specialists and technology, and in the training of cadres and workers, constitute brilliant manifestations of the Soviet people's militant solidarity and lofty internationalist sentiments vis-a-vis the Vietnamese people. That is a powerful encouragement for the Vietnamese people to eagerly march forward to the total victory of their just cause.

On behalf of the Vietnam Workers Party, the National Assembly and the Government of the Democratic Republic of Vietnam and the Vietnamese people, the Vietnamese delegation expressed sincere and profound gratitude for this extremely precious support and assistance of the Communist Party of the Soviet Union, the Supreme Soviet, the Government and the fraternal people of the Soviet Union.

The Vietnamese side expressed the most sincere and cordial sentiments of the Vietnamese people toward the Soviet Union, the land of the October Revolution, the greatest revolution of our times, which has ushered in a new era in human history, and shown to all nations the way of struggle for self-liberation. The Vietnamese side expressed the boundless respect, affection and gratitude of the Vietnamese people towards Lenin the leader of genius, the great teacher of the world revolution whose thinking lights the way of victorious revolutionary struggle for the international working class and the oppressed peoples.

The Vietnamese side warmly hails the fraternal Soviet people's brilliant successes in all fields over the past 54 years. The Vietnamese people are confident that under the leadership of the CPSU, founded and steered by Lenin, the heroic Soviet people who have opened up the way to socialism, cleared the path to communism, and ushered in the era of conquering the cosmos for the happiness of man, will record even greater successes in the building of the Soviet land. In the Soviet Union, the material technological base of communism is being built on an increasing scale, at an accelerated tempo. The Soviet people's great achievements in the building of the new social relationship, the new maternal-technological base and the new man have developed the Soviet Union's strength in the economic, defense and other fields, and they are enhancing her role, position and prestige in the international arena. The might of the Soviet Union, the strength of the socialist system constitutes a sure guarantee for the revolutionary cause of the various nations, a very important factor to defeat the provocative and aggressive schemes of U.S.-headed imperialism, to defend peace and security in the world.

The Vietnamese people deeply rejoice at the brilliant successes of the fraternal Soviet people and consider them to be a powerful encouragement to their revolutionary cause.

The Vietnamese people sincerely wish the Soviet people success in the carrying out of the great tasks laid down by the 24th Congress of the Communist Party of the Soviet Union with a view to bringing the Soviet Union vigorously forward on the road of building the material and technological base of communism, thereby making a positive contribution to the strengthening of the socialist system and the maintenance of world peace.

The two sides are gratified to note that over the past years, the relations between the Vietnam Workers Party and the Communist Party of the Soviet Union and the relations between the two states on the basis of Marxism-Leninism and proletarian internationalism have further developed. Favourable premises already exist for further consolidating and extending these relations.

The Vietnamese party and government delegation stresses the important effect of the assistance extended by the Soviet Union and the other socialist countries for the successful building of socialism in the Democratic Republic of Vietnam and the strengthening of her defence potential.

The two sides expressed their determination to go on doing everything to further tighten the fraternal friendship and multifaceted co-operation between the two parties and the two states on the basis of Marxism-Leninism and proletarian internationalism.

To this end, the two sides agreed to entrust the relevant organizations and services with the task of working out measures for a long-term development of the economic cooperation and the trade, cultural, scientific, technological and other relations between the two countries.

Proposals on these measures are to be submitted for decision to the Central Committee of the Vietnam Workers Party and the Central Committee of the Communist Party of the Soviet Union, to the Government of the Democratic Republic of Vietnam and the Government of the Soviet Union.

The two sides are confident that the establishment of the Vietnam-Soviet Joint Committee on Economic, Scientific and Technological Cooperation will contribute to the strengthening of the economic relations between Vietnam and the Soviet Union.

The Vietnamese and Soviet sides agreed to carry on studies about the building of a hydroelectric work on the Da River, and that the Soviet services concerned will continue to send specialists to the Democratic Republic of Vietnam to undertake the whole work of geological prospection and technical studies and to prepare other required documents.

Over the past years the two sides have exchanged many high-level delegations and held useful talks on problems of common concern. The two sides affirm that such contacts and exchanges of views will be increased in a spirit of friendship, solidarity and mutual confidence for the benefit of the two countries and in the interests of the socialist cause.

As a result of the talks, the two sides have signed relevant agreements. These documents are new manifestations of the lasting friendship and militant solidarity between the Vietnamese and the Soviet peoples.

The two sides are highly satisfied with the talks, meetings and conversations which have been held, and they note that the visit of the Soviet party and government delegation has greatly contributed to consolidate further the relations of fraternal friendship, the militant solidarity and the close cooperation between the Vietnam Workers Party and the Communist Party of the Soviet Union, between the Democratic Republic of Vietnam and the Union of Soviet Socialist Republics.

On behalf of the Central Committee of the Communist Party of the Soviet Union, the Presidium of the USSR Supreme Soviet and the Government of the Soviet Union, Comrade N. V. Podgorny has forwarded to the leading comrades of the Vietnam Workers Party and the Government of the Democratic Republic of Vietnam the invitation for an official visit of a Vietnam party and government delegation to the Soviet Union.

The Vietnamese side has accepted this invitation with thanks. The specific date for the visit will be agreed upon in due course.

For the Democratic Republic of Vietnam: Le Duan, first secretary of the Central Committee of the Vietnam Workers Party, head of the delegation of the Vietnam Workers

Party and the Government of the Democratic Republic of Vietnam.

For the Union of Soviet Socialist Republics: N. V. Podgorny member of the Political Bureau of the Central Committee of the Communist Party of the Soviet Union, President of the Presidium of the USSR Supreme Soviet, head of the Soviet party and government delegation.

Hanoi, October 7, 1971.

THE CLOSING CIRCLE

HON. RICHARD T. HANNA

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. HANNA. Mr. Speaker, more than once I have risen in this distinguished House to discuss the ecological problems faced by modern society. In my mind, the balance in nature should be one of our utmost concerns. Recently, I came across an article, the first of two, by Barry Commoner in the September 25, 1971, issue of the New Yorker. Mr. Commoner's understanding of the situation is extremely deep. His ability to discuss the issues involved simply and clearly makes this article a "must" for anyone interested in ecology. Unlike many other articles on this topic, Mr. Commoner does not write for the sake of rhetoric, but for the sake of writing something worth reading.

Mr. Speaker, I commend this article to my distinguished colleagues. Be assured that I shall inform this House when the second article appears.

The article follows:

THE CLOSING CIRCLE—I

(By Barry Commoner)

Here, in the earth's thin skin of air, water, and soil, and the radiant solar fire that bathes it, several billion years ago life appeared and was nourished. As it grew, life evolved, its old forms transforming the earth's skin, and new ones adapting to these changes. Living things multiplied in number, variety, and habitat until they formed a global network, becoming deftly enmeshed in the surroundings they had themselves created. This is the ecosphere, the home life has built for itself on the planet's surface.

The modern mind has become accustomed to think of separate, singular events, each dependent upon a unique, singular cause. But in the ecosphere every effect is also a cause: an animal's waste becomes food for soil bacteria; what the bacteria excrete nourishes plants; animals eat the plants. Such cycles are hard to fit into human experience in the age of technology, where Machine A always yields Product B, and Product B, once used, is cast away, having no further meaning for the machine, the product, or the user.

We have broken out of the circle of life, converting its endless cycles into man-made, linear events. Oil is taken from the ground, distilled into fuel, burned in an engine, converted thereby into noxious fumes, which are emitted into the air. At the end of the line is smog. Other man-made breaks in the ecosphere's cycles spew out sewage, toxic chemicals, heaps of rubbish—testimony to our power to tear the ecological fabric that has, for millions of years, sustained the planet's life. Suddenly, we have discovered what we should have known long before: that anything which falls to fit into the ecosphere is a threat to its finely balanced cycles.

There is a kind of ambiguity in our relation to the environment. Biologically, human beings participate in the environmental sys-

tem as subsidiary parts of the whole. Yet human society is designed to exploit the environment as a whole to produce wealth. The paradoxical role we play in the natural environment—at once participant and exploiter—distorts our perception of it. Particularly serious is the illusion that we have "conquered nature" and no longer depend on the natural environment. A good place to experience this illusion is in a jet airplane. Safely seated on a plastic cushion, carried in a winged aluminum tube, streaking miles above the earth's surface, through air nearly thin enough to boil the blood, at a speed that almost makes the sun stand still, we find it easy to believe that we have conquered nature and have escaped from the ancient bondage to air, water, and soil.

But, like the people it carries, the airplane is a creature of the earth's environment. Its engines burn fuel and oxygen produced by the earth's green plants. Traced a few steps back, every part of the craft is equally dependent on the environment. The steel came from smelters fed with coal, water, and oxygen—all nature's products. The aluminum was refined from ore with electricity, again produced by combustion of fuel and oxygen or generated by falling water. For every pound of plastic in the plane's interior, we must reckon that some pounds of coal were needed to produce the power used to manufacture it. For every manufactured part, gallons of pure water were used. Without the earth's natural environmental constituents—oxygen, water, fuel—the airplane, like man, cannot exist. The ecosphere and the multitude of living things that inhabit it supports every human activity; it is essential to our livelihoods and our lives.

How the earth was formed from the cloud of cosmic dust that produced the solar system is not yet clear. But we do know that the earth was at first a lifeless rocky mass in an atmosphere consisting largely of water vapor, hydrogen gas, ammonia, and methane. These substances are made up of the same four chemical elements that now dominate the composition of the earth's skin, hydrogen, oxygen, carbon, and nitrogen. (Water is made of two hydrogen atoms and one oxygen atom; hydrogen gas of two hydrogen atoms; ammonia of one nitrogen atom and three hydrogen atoms; methane of a carbon atom and four hydrogen atoms.) But on the earth at present these elements also occur in molecular combinations vastly more numerous and complex than the simple molecules that composed the ancient atmosphere.

The basic events that, from this beginning, generated the present skin of the earth including its living inhabitants, are now fairly well known. Living things are made up nearly exclusively of the same four elements that composed the earth's early atmosphere. But in living things these elements take on enormously complex molecular forms, composing the class of organic compounds. The variety and complexity of organic compounds is staggering.

Thus, a single protein molecule, a type of substance characteristic of all living things, consists of an elaborately convoluted network of thousands of hydrogen atoms, hundreds of carbon atoms, and lesser numbers of oxygen and nitrogen atoms. Thousands of different kinds of protein molecules, each with a distinctive atomic arrangement, occur in living things. Some idea of the enormous variety that is possible can be gained from this esoteric but illuminating fact: The weight of the combination of just one molecule of each of the different kinds of protein that could exist, given the rules of protein composition, would be larger than the weight of the known universe. This means that the proteins that are actually found in living things represent only a fantastically small fraction of all the possible varieties of protein. Such complexity, variety, and selectivity are characteristic of all the other major classes of organic compounds in living things: nucleic acids, carbohydrates,

fats, vitamins, and hormones. Thus, the actual chemical composition of living things is an enormously narrow selection from the range of possible chemical compositions.

What process could convert the few simple molecules in the earth's early atmosphere into the monumentally complex yet highly selective assemblage of organic compounds that we now find in living things? For a long time, it was believed that this accomplishment—like the analogous one of composing a novel out of the letters of the alphabet—was an ability unique to living things. This would mean that life, in its full chemical competence, somehow appeared in a single spontaneous event on the earth, or came to the earth through space from some other source.

According to this view, the origin of life must have preceded the appearance of organic compounds on the earth. We now know that the reverse is true—that organic compounds were derived from the simple ingredients of the earth's early atmosphere by non-living, geochemical processes, and themselves later gave rise to life. The geochemical origin of organic compounds has been imitated in the laboratory: a mixture of water, ammonia, and methane that is exposed to ultraviolet light, an electric spark, or just heat produces detectable amounts of such organic compounds as amino acids—which, linked together, become proteins. Ultraviolet light was readily available from solar radiation on the primitive earth's surface. There is now good reason to believe that under this influence the simple compounds of the earth's early atmosphere were gradually converted into a mixture of organic compounds. Thus, to use an image favored by the originator of this theory, Professor A. I. Oparin, there appeared on the earth a kind of "organic soup."

It was within this soup that the first living things developed, two to three billion years ago. How that happened is a fascinating but poorly understood process. Fortunately, we do know enough about the characteristics of the first forms of life to establish their dependence—and their effects—on the environment. It now seems quite clear that the first forms of life were nourished by the ancient earth's organic soup. All living things require organic substances as food, which is the source both of the energy that drives them and of their own substance. The organic compounds that must have been present in the soup—for example, sugars—can readily yield energy sufficient to support life, and, together with other building blocks, such as amino acids and nucleotides, they can be formed into the huge and complex molecules of life: carbohydrates, proteins, and nucleic acids. Oxygen, as such, was lacking in the early earth's atmosphere, so that the first living things must have derived energy from organic foods without combining them with oxygen. This type of metabolism—fermentation—is the most primitive energy-yielding process in living things.

All present forms of life, including those which depend on oxygen, can carry out fermentation on organic compounds to some degree. However, life could not have survived in this form, for it would have soon consumed the earth's original organic soup. Survival became possible because of a timely evolutionary development: the emergence of photosynthetic organisms. These new organisms—the first green plants—used sunlight to combine carbon dioxide and inorganic materials into fresh organic matter. This crucial event reconverted the first life forms' waste, carbon dioxide, into their food—organic compounds. It closed the circle and transformed what was a fatally linear process into a looped, self-perpetuating one. Since then, the presence and expansion of life on the earth has been linked to a virtually inexhaustible source of energy—the sun.

This, in its primitive form, is the grand scheme that has perpetuated life on the

earth: the dependence of one life process on another; the mutual, interconnected development of the earth's life system and the non-living constituents of the environment; the repeated transformation of the materials of life in great cycles, driven by the energy of the sun. This evolutionary history can be summarized in a series of propositions about the nature of life and its relation to the environment: Living things, as a whole, emerged from the non-living skin of the earth.

Life is a very powerful form of chemistry, which, once on the earth, rapidly changed its surface. Every living thing is intimately dependent on its physical and chemical surroundings, so, as these changed, new forms of life, suited to the new surroundings, emerged. Life begets life, so that once new forms appeared in a favorable environment they could proliferate and spread until they occupied every suitable environmental niche within physical reach. Every living thing is dependent on many others, either indirectly, through the physical and chemical features of the environment, or directly, for food or a sheltering place.

Within every living thing on the earth—indeed, within each of its individual cells—is contained another network (as complex, on its own scale, as the environmental system), made up of numerous intricate molecules, elaborately interconnected by chemical reactions, on which the life properties of the whole organism depend.

Unfortunately, we in the scientific community are not well prepared to deal with interconnections of this kind. We have been trained by modern science to think about much simpler events—how one particle bounces off another, or how Molecule A reacts with Molecule B. Confronted by a situation as complex as the environment and its vast array of living inhabitants, we are likely—some more than others—to attempt to reduce it in our minds to a set of separate simple events, in the hope that their sum will somehow represent the whole. This is an illusory hope. For some time now, biologists have studied animals isolated in cages, and biochemists have studied molecules isolated in test tubes, accumulating the vast, detailed literature of modern biological science. Yet these separate data have yielded no sum that explains why the air reeks and the water is foul.

I make this confession as a preliminary to my own effort, in what follows, to describe the environmental system in a way that may help us understand the present crisis. The confession is intended as a reminder that we have so long neglected the task of studying complex natural processes, such as those in the environment, that our methods of approaching them are still crude and uncertain. Consider the numerous ways of thinking about the environment. First, there is its spatial complexity: How can we encompass in a unifying idea the existence, as a stable continuing entity, of the richly populated, kaleidoscopic ambience of a tropical jungle and the seemingly dead, unchanging desert? Then there is the multiplicity of living things in the environment: What common features can explain the environmental behavior of a mouse, a hawk, a trout, an earthworm, an ant, the bacteria of the human intestine, and the algae that color Lake Erie green?

Then there is the variety of biochemical processes that not only are internal to every living thing but also mediate its interactions with other living things and with the environment: How can we hold within a single set of ideas photosynthesis, the fermentative decay of organic matter, oxygen-requiring combustion, and the intricate chemical dependence of one organism on another that leads to parasitism? Each of these questions, representing a separate view of the environmental system, is only a narrow slice through the complex whole. While each can illuminate some features of the whole system, the picture it yields is necessarily false to some

degree. For in looking at one set of relationships we inevitably ignore a good deal of the rest, yet in the real world everything in the environment is connected to everything else.

One interesting slice through the environmental network can be taken by tracing the movement of chemical elements that participate in it. There are a hundred-odd chemical elements, and every chemical compound consists of molecules in which two or more elementary atoms are linked together. So nitrogen gas (as in the air) consists of molecules made up of two linked nitrogen atoms; the molecules of oxygen gas (also in the air) consist of two linked oxygen atoms; carbon-dioxide molecules consist of a carbon atom combined with two oxygen atoms; sulphur dioxide has an analogous composition; and so on.

A distinction is made between two great classes of compounds: inorganic and organic. Organic compounds were first discovered exclusively in juices of living things (grapes, for example), as against non-living parts of the earth, such as the air or rocks. As the chemical compositions of organic compounds were worked out, it became apparent that all of them contained carbon atoms, linked together in chains (straight or branched) or in rings. Other atoms common in the organic compounds found in living things are hydrogen, oxygen, and nitrogen, and, less frequently, phosphorus, sulphur, and certain metals. Carbohydrates, such as sugar, starch, and cellulose, as well as proteins, fats, nucleic acids, vitamins, and hormones are all organic compounds. Common salt, nitrates, and phosphates lack carbon and are classed as inorganic compounds. Carbon dioxide is usually considered inorganic, because of its simplicity. Chemists have learned how to synthesize organic compounds, and the variety and complexity of man-made organic substances are vast and growing.

Among the chemical elements that participate in ecological cycles, nitrogen plays a leading role, and its track through the environmental network is illuminating. About eighty per cent of the earth's nitrogen is in the air, as chemically inert nitrogen gas. Of the remaining twenty per cent, a good deal is part of the soil's humus, a very complex organic substance. Another significant fraction is contained in living things—almost entirely as part of organic compounds. Nitrogen can enter the soil from the air through nitrogen fixation—a process carried out by various bacteria and algae, some of them living free in the soil and others associated with the roots of legumes, like clover, or with the leaves of some tropical plants.

Nitrogen also enters the soil from the decay of plant matter and of animal wastes. Much of it eventually becomes incorporated into humus. Humus slowly releases nitrogen through the action of soil micro-organisms that convert it into nitrate, a chemical grouping consisting of a nitrogen atom joined to three oxygen atoms. The nitrate is then taken up by the roots of plants and is made into protein and other vital parts of the plants. In nature, the plants become food for animals, whose wastes are returned to the soil, completing the cycle. The plants' roots play a crucial role in this cycle. They extract nitrate from the soil water, using oxygen to drive the combustion processes that yield the needed energy. Oxygen penetrates the soil from the air, through a network of small air spaces created by the spongy structure of humus. Thus, the soil's humus content governs its porosity and the efficiency with which the roots absorb nitrate and other nutrients.

Consider the implications of two sets of relationships that have just been described: one, the over-all movement of nitrogen atoms through the soil cycle; the other, the interdependence of the plants' efficient growth and the structure of the soil. Note that the two cycles are not of the same sort.

One describes the literal movement of a physical entity, the nitrogen atom; the other is more abstract, involving a set of dependencies of one process on another. The two cycles are strongly connected at a single point—humus.

In one cycle, humus is the major storehouse of soil nitrogen for plant growth; in the other, it is responsible for the physical condition of the soil that enables the efficient use of nutrients, including nitrogen released from the humus. This duality in the role of humus in the soil amplifies the effects of changes in soil condition. That is, if the soil's humus content declines, the availability of nitrate for plant growth is reduced, and since the efficiency of nitrate absorption by the roots falls at the same time, the effect of humus on plant growth is self-accelerating. Or, to put it another way, adequate soil humus insures not only a good supply of nutrient nitrogen but also its thrifty use by the plant.

Any environmental agent that, like humus, links two or more cycles is almost certain to play a powerful role in the system as a whole. Such a link enhances the complexity of the system; the fineness of its network, and thereby contributes to its stability. For this reason, when such a link is weakened the ecological fabric is likely to unravel. To appreciate the crucial significance of a link such as humus, one must, of course, see it in its two roles simultaneously. Unfortunately, this type of vision is not fostered by the kind of specialization that isolates biologists into separate camps: experts either on soil structure or on plant nutrition. The tendency to consider only one thing at a time is a chief reason we have failed to understand the environment and have blundered into destroying it.

The movement of nitrogen in aquatic ecosystems is also significant. Again the movement is cyclical through a sequence of steps: fish produce organic wastes; decay micro-organisms working upon these wastes release nitrogen from organic forms and combine it with oxygen to form nitrate; this is reconverted to organic forms by algae; algal organic matter nourishes small aquatic animals; these are eaten by the fish. The balance between the rate of decay of organic materials and the rate of algal growth determines the concentration of nitrate in the water. In nature, little nitrate reaches the water from the soil, because of its thrifty use in the soil cycle. As a result, the nitrate content of natural surface water is very low (on the order of a part per million) and the algal population is correspondingly low; the water is clear and—unless man intervenes to upset the balance—remains largely free of noxious organic debris.

Of the three great ecological arenas—soil, water, and air—the air is the largest, the most uniform across the globe, and the one affected least directly by biological action. In nature, the composition of air is remarkably uniform: nearly eighty per cent nitrogen gas, about twenty per cent oxygen gas, with a very low concentration of carbon dioxide (about .03 per cent), very much lower concentrations of a few rare gases, such as helium, neon, and krypton, and variable amounts of water vapor. Like everything else on earth, the behavior of the sea of air is governed by cycles, but in general these involve physical phenomena rather than chemical or biological ones.

On a short time scale, the air cycle is simply what we call weather. The weather cycle is driven by the sun's energy, which bathes the earth incessantly. Any substance on the earth's surface that absorbs solar energy—for example, soil—is warmed by it unless the energy causes a change in the state of the substance. Energy absorbed by ice, a solid, instead of warming it can convert it to the liquid state—water. Energy absorbed by water either warms it or converts it to the gaseous state—water vapor.

If the energy-absorbing material is readily changed in state—for example, the water in the ocean—a considerable part of the solar energy can be absorbed without raising the temperature. So, after a sunny day the sand is hot and the water relatively cool. During the day, the air above the hot sand, being warm and light, rises; the cooler air over the water flows in to take its place; there is a cool on-shore breeze.

A good deal of the solar energy absorbed by the oceans, which cover two-thirds of the earth's surface, is taken up by conversion of liquid water to water vapor—the process of evaporation. Every gram of water vapor carried in the air embodies a fixed amount of solar energy—about five hundred and thirty-six calories per gram. When the reverse process—condensation of water vapor into liquid—occurs, this energy is released. During hot summer days in the Caribbean, the air is filled with water vapor. As the water vapor rises from the earth's surface, it strikes the cold air of the stratosphere and begins to condense, forming rain. For every gram of water vapor that condenses to rain, five hundred and thirty-six calories of energy are released. This heats the air, causing it to rise; cool air rushes in near the surface to replace the rising hot air—winds are created. This is the origin of Caribbean hurricanes.

For our purpose, the main thing to keep in mind about the daily changes in the air that bathes the earth is that the weather is a means of moving the air mass that covers a particular locale, such as a city, and a means of washing airborne materials, such as pollutants, out of it. The weather keeps the air clean. Anything that becomes airborne, caught by the weather, is eventually brought to earth, where it enters the environmental cycles that operate in the water and the soil. If there is little air movement, whatever is introduced into the air by local activities—for example, smog—tends to accumulate in the air. Still-air conditions have a way of perpetuating themselves. When air is still, it tends to develop into an upper zone of warm air and a lower zone of cold air. This reverses the usual situation, in which the lower layers of air are warmer than the upper ones, and it is therefore called an inversion. Since cold air is denser than warm air, vertical circulation is prevented under inversion conditions.

An inversion may hold the air mass over a city in place for some days. When that happens, as it did in New York City in November, 1966, pollutants may accumulate to the point of emergency. These weather changes are chiefly in the lower reaches of the atmosphere—the layer extending forty or fifty thousand feet above the earth's surface. Above this layer is the stratosphere, where there is almost no moisture—no clouds, no rain or snow. If things that enter the air are light enough to escape into the stratosphere, they may remain there for a long time. Some of the radioactive debris produced by nuclear explosions is associated with very light particles, and they may remain in the stratosphere for months.

Over a long period of time, changes in the composition of the air can have strong effects on the amount and kind of solar radiation that reaches the earth's surface. These effects are brought about by changes in the amounts of airborne dust particles, water vapor, clouds, carbon dioxide, and ozone. Generally, water vapor and clouds have a shielding effect; solar radiation is scattered by water droplets, and much of it may then fail to reach the earth. This is why cloudy conditions tend to reduce the earth's temperature. Carbon dioxide has a special effect, because it is transparent to most of the sun's radiation except that in the infrared region of the spectrum.

In this respect, carbon dioxide is like glass, which transmits visible light but reflects infrared—the properties that make glass so useful in a greenhouse in the winter. Visible

energy enters through the glass, and is absorbed by the soil in the greenhouse and converted to heat, which is reradiated from the soil as infrared energy. But when this infrared energy reaches the greenhouse glass, it is bounced back and held within the greenhouse as heat. This is why an otherwise unheated greenhouse is so warm on a sunny winter day. Like glass, the carbon dioxide in the air that blankets the earth acts as a giant energy valve. Visible solar energy passes through it; reaching the earth, much of this energy is converted to heat, but the resultant infrared radiation is kept within the earth's air blanket by the heat-reflecting property of carbon dioxide.

Thus, the higher the carbon-dioxide concentration in the air the larger the proportion of solar radiation retained by the earth as heat. In the early period of the earth's existence, the carbon-dioxide concentration was high, and, accordingly, the average temperature of the earth approached the tropical. Then, as great masses of plants used carbon dioxide in the formation of vegetation—which eventually fossilized as coal, oil, and gas—the earth became cooler. Now that we are burning these fossil fuels and releasing their carbon dioxide, the carbon-dioxide concentration of the atmosphere is rising, and may have an effect on the earth's temperature.

Another constituent of the air, ozone, plays a special role in governing the radiation that is received at the earth's surface. A chemically reactive molecule composed of three atoms of oxygen joined in a triangle, ozone is a good absorber of ultraviolet radiation. It is formed from oxygen, but since it reacts vigorously with substances near the earth's surface, it is present only in the upper reaches of the stratosphere. When the earth's atmosphere acquired its oxygen from the photosynthetic activity of green plants, the planet also acquired a high-altitude blanket of ozone. Before that, the earth's surface had been bathed in intense ultraviolet radiation; indeed, this was the energy source that converted the early earth's blanket of methane, water, ammonia, and hydrogen gas into the soup of organic compounds in which the first living things originated.

However, ultraviolet radiation is very damaging to the delicate balance of chemical reactions in living cells, and it is likely that the first living things survived only by growing in a layer of water sufficiently thick to protect them from the ultraviolet radiation that reached the earth's surface. Not until oxygen was formed, and, with it, the protective layer of ozone, was the intensity of ultraviolet radiation on the earth's surface reduced sufficiently to allow living things to emerge from the water and begin to inhabit the earth's surface. The continued existence of terrestrial life is dependent on the layer of ozone in the stratosphere—a protective device that is, itself a product of life. A reduction of the ozone in the stratosphere would put terrestrial life under a serious threat from solar ultraviolet radiation. This threat has been raised by the SST.

In broad outline, these are the sort of environmental cycles that govern the behavior of the three great global systems—the soil, the water, and the air. Within each of the systems are found many thousands of different species of living things. Each species is suited to its particular environmental niche, and each, through its life processes, affects the physical and chemical properties of its immediate environment, including the life processes of other living species. These relationships are bewildering in their variety and marvelous in their intricate detail. An animal—say, a deer—may depend on plants for food; the plants depend on the action of soil bacteria for their nutrients; the bacteria, in turn, live on the organic wastes dropped on the soil by animals; at the same time, the deer is food for the mountain lion. Insects may live on the juices of plants or gather pollen from their flowers.

Other insects may suck blood from animals. Bacteria may live on the internal tissues of animals and plants. Fungi break down the tissues of dead plants and animals. All this, many times multiplied, and organized, species by species, in intricate, precise relationships, makes up the vast network of life on the earth.

The science that studies these relationships and the processes linking each living thing to the physical and chemical environment is ecology—the science of planetary housekeeping. It is a young science, and much of what it includes has been learned from studies of only small segments of the network of life on the earth. Ecology has not yet explicitly developed cohesive, simplifying generalizations such as are exemplified by the laws of physics. Nevertheless, a number of generalizations are evident in what we already know about the ecosphere, and these can be organized into an informal set of laws of ecology.

The First Law of Ecology: Everything Is Connected to Everything Else. The fact that an ecosystem consists of multiple interconnected parts that act on one another has some surprising consequences. Our ability to picture the behavior of such systems has been helped considerably by the development, even more recent than ecology, of the science of cybernetics. We owe the basic concept to the inventive mind of the late Norbert Wiener. "Cybernetics" derives from the Greek word for helmsman; it is concerned with cycles of events that steer, or govern, the behavior of a system. The helmsman is part of a system—the ship—that also includes the compass and the rudder. If the ship veers off the chosen compass course, the change shows up in the movement of the compass needle.

Observed and interpreted by the helmsman, this event determines a subsequent one: the helmsman turns the rudder, which swings the ship back onto its original course. When this happens, the compass needle returns to its on-course position, and the cycle is complete. If the helmsman turns the rudder too far in response to a small deflection of the Compass needle, the excess swing of the ship shows up in the compass, signaling to the helmsman to correct his overreaction by an opposite movement. Thus, the operation of the cycle stabilizes the course of the ship.

In a similar way, stabilizing cybernetic relations are built into an ecological cycle. Consider, for example, the fresh-water ecological cycle of fish, organic waste, bacteria of decay, inorganic products, algae, fish. Suppose that, owing to unusually warm summer weather, there is a rapid growth of algae. This depletes the supply of inorganic nutrients, so that two sectors of the cycle—algae and nutrients—are out of balance, but in opposite directions. The operation of the ecological cycle, like that of the ship, soon brings the situation back into balance. For the excess of algae increases the case with which fish can feed on them, and this reduces the algal population, increases fish-waste production, and eventually leads to an increased level of nutrients when the waste decays. Thus, the levels of algae and nutrients tend to return to their original, balanced position.

In such cybernetic systems, the course is maintained not by rigid control but flexibly, just as the ship does not move unwaveringly on its path but swings first to one side of the true course and then to the other. The frequency of its swings depends on the relative speeds of the various steps in the cycle, such as the rate at which the ship responds to the rudder. Ecological systems exhibit comparable swings, although these are often obscured by the effects of daily or seasonal variations in weather and other environmental agencies. The most famous examples of such ecological oscillations are the periodic fluctuations in the size of fur-bearing-animal populations.

For example, from trapping records in Canada it is known that the populations of rabbits and lynx follow ten-year fluctuations. When there are many rabbits, the lynx prosper; the rising population of lynx increasingly ravages the rabbit population, reducing it; as the rabbits become scarce, there is insufficient food to support the now numerous lynx; as the lynx begin to die off, the rabbits are less fiercely hunted and increase in numbers. And so on. These oscillations are built into the operation of the simple cycle, in which the lynx population is positively related to the number of rabbits and the rabbit population is negatively related to the number of lynx.

In such an oscillating system, there is always danger that an oscillation will swing so wide of the balance point that the system can no longer compensate for it and the system will collapse. Suppose, for example, that in one particular swing of the rabbit-lynx cycle the lynx manage to eat all the rabbits (or, for that matter, all but one). Now the rabbit population can no longer reproduce. As usual, the lynx begin to starve as the rabbits are consumed, but this time the drop in the lynx population is not followed by an increase in rabbits. The lynx then die off. The entire rabbit-lynx system collapses.

This is similar to the ecological collapse that accompanies eutrophication. If the nutrient level of lake water becomes so high as to stimulate the rapid growth of algae, the dense algal population cannot be long sustained, because of an intrinsic limitation in photo-synthetic efficiency. As the thickness of the algal layer in the water increases, insufficient light for photosynthesis reaches the lower parts of the algal layer. Thus, any strong overgrowth of algae very quickly dies back, releasing organic debris. The level or organic matter may then become so great that its decay—which is to say its combining with oxygen to form nitrate and other inorganic substances—totally depletes the oxygen content of the water. The bacteria of decay, which need oxygen to survive, then die off. The entire aquatic cycle collapses.

The dynamic behavior of a cybernetic system—that is, the frequency of its natural oscillations, the speed with which it responds to external changes, and its over-all rate of operation—depends on the relative rates of its constituent steps. In the ship system, the compass needle swings in fractions of a second; the helmsman's reaction takes some seconds; the ship responds over a period of minutes. In the aquatic ecosystem, each biological step also has a characteristic reaction time, which depends on the metabolic and reproductive rates of the organisms involved. The time to produce a new generation of fish may be some months; for algae it is a matter of days; decay bacteria can reproduce in a few hours.

The metabolic rates of these organisms—that is, the rates at which they use nutrients, consume oxygen, produce waste—is inversely related to their size. If we call the metabolic rate of a fish one, the algal rate is about a hundred and the bacterial rate about ten thousand. If the entire cyclical system is to remain in balance, the over-all rate of turnover must be governed by the slowest step—in this case, the growth and metabolism of the fish. Any external occurrence that forces part of the cycle to operate faster than the over-all rate leads to trouble.

For example, the rate of waste production by fish determines the rate of bacterial decay and the rate of oxygen consumption in the course of that decay. In a balanced situation, enough oxygen is produced by the algae and enters from the air to support the decay bacteria. But suppose that the rate at which organic waste enters the cycle is increased artificially—for example, by the dumping of sewage into the water. Now the decay bacteria are supplied with organic waste at a much

higher level than usual. Because of their rapid metabolism, they are able to act quickly on the increased organic load.

As a result, the rate of oxygen consumption by the decay bacteria can easily exceed the rate of oxygen production by the algae (and the rate of the entry of oxygen from the air), so the oxygen level goes to zero and the system collapses. Thus, the rates of the separate processes in the cycle are in a natural state of balance that is maintained only as long as there is no overwhelming external intrusion on the system. Such an intrusion, because it is not controlled by the self-governing cyclical relations, is a threat to the stability of the whole system.

Ecosystems differ considerably in their rate characteristics and therefore vary a great deal in the speed with which they react to changed situations or approach the point of collapse. For example, aquatic ecosystems turn over much faster than a soil ecosystem; an acre of richly populated marine shoreline annually produces about seven times as much organic material as an acre of alfalfa. The slow turnover of the soil cycle is due to the rather low rate of one of its many steps—the release of nutrient from the soil's organic store, which is very much slower than the corresponding step in the aquatic system.

The amount of stress an ecosystem can absorb before it is driven to collapse is also a result of its various interconnections and their relative speeds of response. The more complex the ecosystem, the more successfully it can resist a stress. For example, in the rabbit-lynx system, if the lynx had an alternative source of food they might survive the sudden depletion of rabbits. In this way, branching—the establishing of alternative pathways—increases an ecosystem's resistance to stress. Most ecosystems are so complex that the cycles are not simple circular paths but are crisscrossed with branches to form a network, or a fabric, of interconnections. Like a net, in which each knot is connected to others by several strands, such a fabric can resist collapse better than a simple circle of threads, which if it is cut anywhere breaks down as a whole. Environmental pollution is often a sign that ecological links have been cut, and that the ecosystem has been artificially simplified and made more vulnerable to stress and to final collapse.

A typical food chain begins with microscopic algae; these are eaten by small fish, which, in turn, are eaten by game fish, which are finally taken by a bird of prey or man. As a result, there is a kind of pyramid of consumption, in which the biggest animal, at the top, is sustained by a great mass of smaller organisms, lower down. One consequence of this relationship is that when any substance that, unlike ordinary body substances, is not metabolized (for example, a pesticide or mercury) enters the food chain, it becomes increasingly concentrated as it moves toward the top. For example, when Clear Lake, California, was treated with the persistent, non-metabolized insecticide DDD, the water was found to contain from fifty to seventy parts of the insecticide per million. In the microscopic algae, DDD concentrations were about two hundred and fifty times as great; in small fish, the concentration was about five hundred times as great as it was in the water; and in large fish the concentration of DDD was eighty thousand times that of the lake water.

All this results from the simple fact about ecosystems that everything is connected to everything else. The system is stabilized by its dynamic, self-compensating properties, but these same properties, if they are subjected to undue stress, can lead to a dramatic collapse. The complexity of the ecological network and its intrinsic rate of turnover determine how great a stress it can endure, and for how long, without collapsing. And the ecological network is an amplifier, so that

a small perturbation in one place may have large, distant, long-delayed effects.

The Second Law of Ecology: Everything Must Go Somewhere. This is, of course, simply an informal restatement of a basic law of physics—that matter is indestructible. Applied to ecology, the law means that in nature there is no such thing as waste. In every natural system, what is excreted by one organism as waste is taken up by another as food. Animals release carbon dioxide as a respiratory waste; this is an essential nutrient for green plants. Plants excrete oxygen, which is used by animals. Animal organic wastes nourish the bacteria of decay. The waste of the bacteria—inorganic materials such as nitrate, phosphate, and carbon dioxide—become algal nutrients.

A persistent effort to answer the question "Where does it go?" can yield a surprising amount of valuable information about an ecosystem. Consider, for example, the fate of a household item that contains mercury—a very toxic substance, with serious environmental effects that have only recently been recognized. A dry-cell battery, containing mercury is bought, used to the point of exhaustion, and then thrown out. But where does it really go? First it is put in a container of rubbish; this is collected and taken to an incinerator. Here the mercury is heated and converted into mercury vapor, which is emitted by the incinerator stack. Mercury vapor is carried by the wind, and is eventually brought to earth in rain or snow. Entering a mountain lake, let us say, the mercury condenses and sinks to the bottom. Here it is acted on by bacteria, which converts it to methyl mercury. This is soluble and is taken up by fish; since it is not metabolized, the mercury accumulates in the organs and the flesh of the fish. The fish are caught and eaten by men and the mercury becomes deposited in their organs. This is an effective way to trace out an ecological path.

It is also an excellent way to counteract the prevalent notion that something regarded as useless simply "goes away" when it is discarded. Nothing "goes away," instead, it is transferred from place to place, converted from one molecular form to another, acting on the life processes of any organism in which, for a time, it is lodged. One of the chief reasons for the present environmental crisis is that large amounts of material have been extracted from the earth, converted into new forms, and discharged into the environment without anyone's taking into account the fact that everything has to go somewhere. The results, too often, is the accumulation of harmful amounts of material in places where, in nature, they do not belong.

The Third Law of Ecology: Nature Knows Best. In my experience, this principle is likely to encounter considerable resistance, for it appears to contradict a strongly held idea about the unique competence of human beings. One of the most pervasive features of modern technology is the notion that it is intended to "improve on nature"—to provide food, clothing, shelter, and means of communication and expression that are superior to those available to man in nature. Stated baldly, this third law of ecology holds that any major man-made change in a natural system is likely to be detrimental to that system. This is a rather extreme claim; nevertheless, I believe that it has a good deal of merit, if it is understood in a properly defined context.

Suppose you were to open the back of your watch, close your eyes, and poke a pencil into the exposed works. The almost certain result would be damage to the watch—almost certain, but not absolutely so. There is some possibility, however small, that the watch was out of adjustment and that the random thrust of the pencil would happen to make the precise change needed to improve it. However, this outcome is exceed-

ingly improbable. The reason is self-evident. There is a very considerable amount of what technologists now call research and development (or, more familiarly, r. and d. behind the watch. This means that over the years numerous watchmakers, each taught by a predecessor, have tried out a huge variety of detailed arrangements of watchworks, have discarded those that were not compatible with the over-all operation of the system, and have retained the better features.

In effect, the watch mechanism, as it now exists, represents a very restricted selection from among an enormous variety of possible arrangements of its components. Any random change made in the watch is likely to fall into the very large class of inconsistent or harmful arrangements that have been tried out in past watchmaking experience and discarded. One might say, as a law of watches, that "the watchmaker knows best."

There is a close analogy in biological systems. It is possible to induce random, inherited changes in a living thing by treating it with an agent, such as X-rays, that increases the frequency of mutations. Generally, exposure to X-rays increases the frequency of all the mutations that have been observed—though very infrequently—in nature and can therefore be regarded as possible changes.

What is significant for our purpose is the universal observation that when mutation frequency is enhanced by X-rays, or other means, nearly all the mutations are harmful to the organisms, and the great majority are so damaging as to kill the organisms before they are fully formed. In other words, a living organism that is forced to undergo a random change in its organization is, like a watch, almost certain to be damaged rather than improved. And in both cases the explanation is the same—a great deal of r. and d.

In effect, there are several billion years of r. and d. behind every living thing. In that time, a staggering number of new individual living things have been produced, each of them affording an opportunity to try out the suitability of some random genetic change. If the change damages the organism, the organism is likely to die before the change can be passed on to future generations. In this way, living things accumulate a complex organization of compatible parts, and those possible arrangements that are not compatible with the whole are screened out in the long course of evolution. Thus, the structure of a present living thing or the organization of a current natural ecosystem is likely to be "best," in the sense that it has been so heavily screened for disadvantageous components that any new one is likely to be worse than the present ones.

This principle is particularly relevant to the field of organic chemistry. Living things are composed of many thousands of different organic compounds, and it is sometimes imagined that at least some of these might be improved upon if they were replaced by man-made variants of the natural substance.

The third law of ecology suggests that the artificial introduction of an organic compound that does not occur in nature is very likely to be harmful. The varieties of chemical substances that are actually found in living things are vastly more restricted than the varieties that are possible. Obviously, a fantastically large number of protein types are not made by living cells, although many of these possible protein types were once formed in some particular living things, found to be harmful, and rejected through the death of the experimental subject. Living cells synthesize fatty acids—a type of organic molecule that contains carbon chains of various lengths—whose chains have even numbers of carbon atoms (two, four, six, etc.) but synthesize no fatty acids with odd numbers of carbon atoms in their chains.

This suggests that the latter have at some point been tried out and found wanting. Similarly, organic compounds that contain attached nitrogen and oxygen atoms are very rare in living things. This fact should warn us that the artificial introduction of substances of this type could be dangerous. And that is indeed the case: such substances are usually toxic and frequently carcinogenic. And I would suppose from the fact that DDT is nowhere found in nature that somewhere, at some time in the past, some unfortunate cell synthesized this molecule—and died.

One of the striking facts about the chemistry of living systems is that for every organic substance that is produced by a living organism there exists somewhere in nature an enzyme capable of breaking that substance down. In nature, that is, no organic substance is synthesized unless there is provision for its degradation; recycling is enforced. When man synthesizes an organic substance with a molecular structure that departs significantly from the types occurring in nature, the probability is that no degradative enzyme exists and that the material will accumulate.

These considerations suggest that it would be prudent to regard every man-made organic chemical that has a strong effect on any one organism as potentially dangerous to other forms of life. In practice, this means that all man-made organic compounds that are at all active biologically ought to be treated as we treat drugs—or, rather, as we *should* treat them. That is, prudently, cautiously. Such caution or prudence is, of course, impossible when billions of pounds of the substance are produced and broadly disseminated into the ecosystem, where it can reach and affect numerous organisms not under our observation. Yet this is precisely what has been done with detergents, pesticides, and herbicides.

The Fourth Law of Ecology: There Is No Such Thing As a Free Lunch. In my experience, this idea has proved so illuminating for environmental problems that I am borrowing it from its original source, economics. The law derives from a story that economists like to tell about an oil-rich potentate who decided that his new wealth needed the guidance of economic science. Accordingly, he ordered his advisers, on pain of death, to produce a set of volumes containing all the wisdom of economics. When the tomes arrived, the potentate was impatient and issued a second order—to reduce all the knowledge of economics to a single volume. The story goes on in this vein until the advisers are required, if they are to survive, to reduce the totality of economic science to a single sentence. This sentence is the "free-lunch" law.

In ecology, as in economics, the law is intended to warn us that every gain is won at some cost. In a way, this ecological law embodies the three previous laws. Because the global ecosystem is a connected whole, in which nothing can be gained or lost, and which is not subject to over-all improvement, anything extracted from it by human effort must be replaced. The payment of this price cannot be avoided.

Our experience with nuclear power, for example, tells us that modern technology has achieved a scale and an intensity that begin to match those of the global system in which we live. But it also reminds us that we cannot wield this power without deeply intruding on the delicate environmental fabric that supports us, and it warns us that our ability to intrude on the environment far outstrips our knowledge of the consequences. It tells us that every environmental incursion, whatever its benefits, has a cost.

Air pollution is not merely a nuisance and a threat to health. It is a reminder that our most celebrated technological achievements—the automobile, the jet plane, the power plant, industry in general, and, indeed, the modern city itself—are, in the environment, costly failures.

The same pattern may be found in the effects of our pollution of water, as in the eutrophication of Lake Erie, where we have grossly—and, I believe, irreversibly—changed a source of great ecological wealth. And what we have done to our air and water we are now doing to our soil.

Decatur, Illinois, which provides a striking case history of soil pollution, is a quiet city of a hundred thousand people, lying in the open farmland of Illinois about a hundred and twenty miles from the nearest large city, St. Louis. There are only a few local industries, none of them very serious polluters. It might seem an unlikely place to find evidence of the environmental crisis. Yet Decatur now confronts a pollution problem as serious in its potential human hazards, and as far-reaching in its significance for the United States and the world, as air pollution in Los Angeles.

There was no evidence of environmental trouble in Decatur until a few years ago, when the local health department received a sample of water for a routine test for nitrate content. The department conducted such tests chiefly as a service to surrounding farms. For a number of years, it had been known that shallow wells on farms in the Midwest often contained nitrate above the levels recommended by public-health authorities. Nitrate itself appears to be relatively innocuous in the human body.

However, it can be converted to nitrite by the action of certain intestinal bacteria, which are often more active in infants than in adults. And nitrite, a grouping of one nitrogen and two oxygen atoms, is poisonous, for it combines with hemoglobin in the blood, converting it to methemoglobin, and so prevents the transport of oxygen by the blood. An infant thus affected turns blue and is in serious danger of asphyxiation and death.

The problem with the wells was discovered some years ago by physicians in Missouri, and since then health officials have been alert to it, warning farmers to use a new water supply when their wells exceeded the recommended nitrate level—forty-five parts per million. The problem is worldwide; infant methemoglobinemia from excessive nitrate has been reported in France, Germany, Czechoslovakia, and Israel. The Macon County health department found that the sample in question exceeded the recommended limit somewhat, but this was not surprising, since nitrate-polluted wells are fairly common in the area.

However, the citizen who had submitted the sample then informed the health department that the sample came not from a farm well but from the Decatur city water supply. The city obtains its water from Lake Decatur, an impoundment of the Sangamon River, and tests quickly showed that both the lake water and the river water had a nitrate level at about the recommended limit. This was in the spring. By summer, the level had declined considerably, but it rose again in the winter, so that in the following spring months it had again reached a potentially dangerous nitrate level. Since then, the cycle has been repeated, and the city faces a serious, and as yet unsolved, public-health problem.

I learned all this from Leo Michl, the Public Health Administrator of Macon County, in Decatur, who called me in St. Louis, where I was teaching a course at Washington University on environmental problems, among them the general behavior of nitrogen in the ecosystem. The Decatur situation was discussed in class, and since students these days are actively concerned with the relevance of science to public affairs, it was perhaps not surprising that one student, who happened to live in Illinois, telephoned the Decatur newspaper to report the water situation. After the facts were confirmed by the health department, the

paper published the news that in recent months the city's water supply had been polluted with excessive nitrate, and that fertilizer used on the surrounding farmlands was a possible source of the pollution.

The newspaper account agitated a number of people. Intensive use of inorganic nitrogen fertilizer has become the mainstay of farms in the Decatur area, as it has in many other parts of the world. Since 1945, the costs to the American farmer of most of his needed resources—land, labor, machinery, and fuel—have increased considerably in relation to the cash value of his crops. On the other hand, the relative cost of fertilizer has declined significantly.

As a result, the farmer receives his greatest economic return, per dollar invested, from the use of nitrogen fertilizer. If public-health considerations should force a reduction in the use of this type of fertilizer, farmers might face economic ruin. To appreciate how acutely this conflict affects the farmers of Illinois, it is necessary to understand agricultural conditions in that area. Illinois is in the great corn belt of the United States, and corn is an avid consumer of soil nitrogen. The nitrogen available from the natural fertility of the soil has declined since farming began in the area. Under natural conditions, a rather large store of humus nitrogen is maintained in the soil by the addition of the organic remains of plants and the bodily wastes of animals.

Organic nitrogen is also formed there by the fixation of nitrogen taken from the air and acted upon by certain soil bacteria. When the soil is heavily cropped and the crop is removed from the land and sold, rather than fed to animals, the supply of humus nitrogen necessarily declines.

However, crop yields can be increased considerably by the artificial addition of inorganic nitrogen to the soil. In Illinois, the total annual use of inorganic nitrogen as fertilizer increased from less than ten thousand tons in 1945 to about six hundred thousand tons in 1967, and the increasing use of nitrogen fertilizer has greatly improved the yield of corn per acre. Between 1945 and 1948, when very little fertilizer was used, the average annual corn yield was about fifty bushels per acre; in 1958, when about a hundred thousand tons of fertilizer was used, the average corn yield was about seventy bushels per acre—an increment of twenty bushels per acre in yield in response to a fertilizer increment of about a hundred thousand tons per year.

In 1965, four hundred thousand tons of nitrogen was used to obtain an average yield of about ninety-five bushels per acre—a fertilizer increment of three hundred thousand tons to obtain an additional twenty-five bushels per acre. Obviously, the law of diminishing returns is at work here; as cultivation becomes increasingly intensive, increasing amounts of nitrogen fertilizer must be used to obtain the same increment in yield. In these figures lies the crux of the issue that confronts Decatur. Local farmers often find that if they receive a return of only about eighty bushels per acre from their corn crop, they just about meet expenses. If they are to operate at a profit, the yield per acre must be raised above that point, and under present conditions this can be accomplished only by the use of nitrogen fertilizer at levels that are utilized very inefficiently by the crop.

The farmers are not troubled by this inefficiency in itself, because the cost of fertilizer is very low. Of course, the inefficient uptake of the last few pounds of nitrogen per acre means that a good deal of the nitrogen must go somewhere else. The fate of this "lost" nitrogen is suggested by data from the Illinois State Water Survey, which shows that between 1958 and 1965, when nitrogen-fertilizer use increased fourfold, the nitrate levels of a number of the rivers that drain Illinois farmlands increased significantly.

There was good reason to believe that the intensive use of nitrogen fertilizer was the basic cause of the dangerously high levels of nitrate in the Decatur water supply. This possibility put the citizens of Decatur in a very difficult position. Clearly, there was a hazard to their water supply that needed to be corrected, but if it were to be corrected by a reduction in the use of nitrogen fertilizer on the surrounding farms, not only the farmers but Decatur itself would suffer economically, since the economy of the city was largely dependent on the farms.

Further controversy on this general subject broke out following my presentation of a paper on the relation between fertilizer and nitrate levels in Midwestern rivers at the annual meeting of the American Association for the Advancement of Science in December, 1968. Within two weeks, an official of the National Plant Food Institute, the American fertilizer trade association, had sent out letters to soil experts at a number of major universities warning them about my paper. This attitude is understandable, given the Institute's vested interest in increasing the sale of fertilizer—a two-billion-dollar industry in the United States.

Even within the scientific community itself, "objectivity" is a difficult—perhaps an illusory—goal. After all, we in the scientific community are all human beings as well as scientists. Like everyone else, we develop a set of personal values that reflect, among other things, our relations to major segments of society and our vested interest in the significance and validity of our own work. The way scientists get at the truth is not so much by avoiding mistakes or personal bias as by displaying them in public, where they can be corrected.

In any event, it is not surprising that, in addition to the officers of the fertilizer trade association, some individual university scientists should have been irritated by observations regarding the hazards of fertilizers to water quality, for the farmers who now use great amounts of nitrogen fertilizer do so on the advice of agricultural scientists—men who have devoted their lives to improving the farmers' crop yield and their economic well-being. Indeed, the enormous economic value of nitrogen fertilizer to the farmers of the United States is a tribute to the personal devotion and competence of agricultural scientists.

What is at fault in this situation is not the agricultural consequences of intensive nitrogen fertilization for farm yields but its ecological consequences for water supplies, and until very recently—when the controversy over pesticides, fertilizers, and other agricultural chemicals led to a change in outlook—this broader context was considered to lie outside the scope of agricultural science.

Aside from open discussion, the scientific community has another procedure for getting at the truth—the accumulation of more data. Accordingly, some of us at the Washington University Center for the Biology of Natural Systems decided to study the Decatur situation in detail. Excellent information about the nitrate levels of the Sangamon River was already available from the Illinois State Water Survey, and data regarding fertilizer use were also at hand. Though the parallel between the two sets of data was evident, such results would continue to be open to criticism as long as there was no information that literally traced the movement of fertilizer nitrogen from the point of application in the soil to the river itself.

What was needed was some way to distinguish between the nitrate in the river which originated in artificial fertilizer and the nitrate which originated from the breakdown of humus or other organic materials. At this point, I recalled an observation made in my laboratory some twenty years earlier, when we were using a heavy (nonradioac-

tive) isotope of nitrogen to trace the synthesis of viruses in plants. In nature, the nitrogen atom exists in two forms, which are chemically identical and differ only in their atomic weights.

One of them, Nitrogen 14 (that is, nitrogen with a weight of fourteen atomic units), makes up about 99.6 per cent of all natural nitrogen; the other form, Nitrogen 15 (that is, nitrogen with a weight of fifteen atomic units), makes up the remainder. The ratio between the prevalence of the two forms of nitrogen can be determined with remarkable precision by an electronic instrument, the mass spectrometer. From mass-spectrometer measurements, we now soon learned that whereas the artificial fertilizers used in Illinois all had nitrogen-isotope ratios approximately the same as that found in the air (a natural consequence of the fact that they were made, chemically, from air nitrogen), natural nitrogen in soil, manure, and sewage was considerably enriched in Nitrogen 15. This meant that measurements of the isotope ratio in nitrate taken from the Sangamon River or from soil-drainage water might show whether the nitrate was derived from artificial fertilizer or from organic matter in soil, manure, or sewage.

We decided to make such measurements. Fortunately, a Center associate, Dr. John W. Goers, had been brought up in Illinois and knew the Decatur area and some of its people well. He obtained the cooperation of a group of farmers whose land lay in the Sangamon River watershed near the town of Cerro Gordo. All the land in the area is artificially drained by a system of tile pipes that lie three or four feet beneath the surface. Tramping about the fields with his farmer friends, Dr. Goers located the outlet points of various drainage tiles and made arrangements to collect samples of the water that flowed from them.

These samples were brought back to the laboratory and measured for nitrate content, and the nitrogen was analyzed with respect to the ratio between Nitrogen 15 and Nitrogen 14. It was found that those drains yielding high nitrate levels were low in Nitrogen 15 content, and those yielding low levels were high in it. This meant that whatever source was responsible for high nitrate levels in soil-drainage water must have itself been relatively low in Nitrogen 15 content.

The only possible nitrogen source with that characteristic was artificial nitrogen fertilizer. More detailed studies confirmed this conclusion, and showed as well that a minimum of sixty per cent of the nitrate in Lake Decatur is derived from fertilizer used on the adjacent farms. There is now little doubt that the nitrate problem in Lake Decatur arises from the intensive use of artificial nitrogen fertilizer on the neighboring farms.

It should be noted that our university is not an agricultural institution—that, indeed, like most of the nation's independent universities, it has long been guided by the precept that its mission is the propagation of "pure" knowledge. This has been particularly true in the science departments, where the goal is the pursuit of "basic" science—the fundamental properties of nature. In practice, especially in biology, this has meant in recent years that research has been concerned largely with the finer details of chemical and physical processes in living things. Usually, such events cannot be studied in whole living systems, where they are so numerous and so elaborately interconnected that the nature of any single process is obscured by the effects of others. Instead, research tends to be concentrated on test-tube systems of reactive molecules isolated from living things. This kind of research, "molecular biology," has become almost synonymous with "pure" biology.

Some of us have been concerned because such an approach is inapplicable to the ac-

tual biological processes that occur in nature—for example, in Illinois soil—where the system's intrinsic complexity must be understood rather than avoided by artificial isolation of its parts in the laboratory. Indeed, a general controversy has now arisen in the United States scientific community—a controversy reflecting to some degree the demand by many of our students for studies that are relevant to the real problems of the world. The controversy centers on the question of whether "basic" science ought to be pursued for its own sake or whether equally basic research can be done in the complex arena of nature as it exists outside the laboratory.

One of my university colleagues, Dr. Daniel H. Kohl, is an expert and gifted researcher into the electronic processes that couple the driving force of solar energy to the chemical changes that are the ultimate consequences of photosynthesis in plants. Dr. Kohl is concerned with more than electrons, however, and has an equally strong interest in the environmental crisis and its consequences for human welfare. He therefore expressed an interest in taking part in our study of the isotope analysis of the fate of fertilizer nitrogen in Illinois.

Indeed, he is responsible for much of the recent success of the study, not only in the laboratory but in the equally important arena of ordinary human relations with Illinois farmers. It is disturbing but illuminating to record that Dr. Kohl's decision to undertake this work was made over the strong objection of most of his departmental colleagues, who were convinced that such work was an unacceptable diversion from the department's devotion to "pure" research.

Since then, much of the controversy has faded away, for it has become increasingly evident—not only to the Decatur health officials but also to farmers, agronomists, and "pure" biologists—that the fertilizer problem is serious and is of far-ranging scientific and social significance. This was apparent when we reported the results of our isotope studies at an unusual kind of scientific seminar, held one evening in the fall of 1970 in the Cerro Gordo high school with local farmers, local health-department officials, and agronomists from the University of Illinois.

We presented our results, explained our interpretation of them, and reported our conclusion that the high nitrate levels in the Decatur water supply were due largely to the intensive use of nitrogen fertilizer by the surrounding farms. The discussion went on for hours.

Following a lively interchange with the agronomists, there was general agreement that the data were meaningful. One agronomist reported that agricultural agents were already advising local farmers to start thinking about the possibility of using less nitrogen fertilizer. (Some months later, that same man, Samuel R. Aldrich, who is one of the nation's leading agricultural experts, was appointed to the Illinois Pollution Control Board, where he proposed a measure unprecedented in United States agriculture: state regulations to govern the use of fertilizer.) The response of the farmers that evening was especially rewarding. From their own scientific insights, they advanced useful suggestions for the further development of our research.

Indeed, several farmers have since offered the use of their land for experimental studies to determine the effects of reduced fertilizer levels on the nitrogen output of drainage tiles. From that discussion in the high school at Cerro Gordo, it was evident that the farmers, who had the most to lose from any reduction of nitrogen use, were as deeply concerned as the health officials about the hazard to the Decatur water supply. They made it clear that they were prepared to consider

any suggestions that might resolve the conflict between Decatur's need for healthful water and their own need to make a living.

Since then, our work has continued at a much more rapid pace. We have assembled a team of biologists, chemists, geologists, soil scientists, biochemists, anthropologists, and economists to work out the broad range of problems that must be considered. On the one hand, we are studying the incidence of methemoglobinemia in the area, in order to evaluate the potential cost, in health, of elevated nitrate levels. At the same time, detailed studies have been started to work out the consequences for the farmer of any proposed reduction in nitrogen-fertilizer use.

Aside from our own group, other researchers have been working in the area, and one of these men, Dr. Abraham Gelperin, of the University of Illinois, recently reported the results of a ten-year study of infant death rates in various Illinois counties. He reported that in five counties the death rate from asphyxiation for all babies born during the months when nitrate levels were high (April, May, and June) was 4.8 per thousand. For the months when nitrate levels were low (August, September, and October), the rate for boy babies was 4.5 per thousand, while the rate for girls was only 2.9 per thousand. Dr. Gelperin concluded, "The evidence indicated that high levels of nitrate in the water, as found in these counties, may increase the infant mortality rate among female babies." This may be the first evidence of the cost in human health of the intensive use of nitrogen fertilizer.

What we learn in the cornfields around Decatur will be applicable elsewhere. In central California, intensive use of nitrogen fertilizer is suspected of causing sharp increases in nitrate levels in wells that yield the water supply for many towns. A similar problem has appeared in Israel and in Germany. All this reflects the unexpected result of an important technological advance that was permitted to intrude significantly on the environment before we were aware that in improving agriculture it would harm human health.

Environmental deterioration is caused by human action and has painful effects on the human condition. The environmental crisis is therefore not only an ecological problem but also a social one. To the intrinsic complexity of the ecosphere this circumstance adds the further complications of human activities. The number of people supported by the earth's natural system; the sciences that tell us what we know about nature; the technology that converts this knowledge into practical action; the resultant industrial and agricultural production that extracts new wealth from the earth's skin; the economic systems that govern the distribution and uses of wealth; the social, cultural, and political processes that shape all the rest—where in this welter of circumstances can we find the human activities that have been most significant in causing the environmental crisis?

Those who are concerned with "over-population" often confront us with figures on the galloping progression of the number of human beings who inhabit the earth: five million in prehistoric times, two hundred and fifty million at the birth of Christ, five hundred million in 1650, one billion in 1850, three and a half billion at present, and some six billion projected for 2000. It must also be taken into account that there has been a similarly rapid growth in the number, variety, and usefulness of machines, buildings, conveyances, and cooking utensils; in the number, variety, and intellectual richness of literary works, paintings, musical compositions, and scientific articles. The earth has experienced not only a "population explosion" but also a "civilization explosion"—the new knowledge of nature generated by science, the power of technology to guide

natural forces, the huge increase in material wealth, the rich elaboration of economic, cultural, social, and political processes.

In arbitrarily singling out from among all these human activities only one—science—my intention is not to slight such other important influences on man's attitude toward the world in which he lives as painting, music, and poetry, or to deny their power, but only to provide a sharper focus on the material base of human life on earth. Science is, after all, the means by which human beings learn the nature of the world in which they live. Particularly in relation to the ecosphere, much of what we do is now guided, consciously, by what science tells us (or what we think it tells us) about nature.

Immediately dependent on science—the accumulated knowledge of how nature operates—is technology, which generates practical means of using scientific knowledge for useful ends. In the past, technology was often developed by trial and error, rather than directly from organized scientific knowledge, but in modern times nearly all technological advances have been consciously guided by science.

In turn—and, again, especially in modern times—industrial and agricultural production are dependent on technology. And in all modern societies production is closely linked to the operation of the economic systems that govern the distribution and exchange of the forms of wealth people require. (To be sure, the connection between science and technology, on the one hand, and the economic system, on the other, is a two-way affair. While economic activity depends on productive processes generated by science and technology, the reverse is also true. The economic system—and the political ideology it expresses—imposes important constraints on the development of science and technology.

One of these is simply money, which is provided by government agencies, private foundations, or business enterprises to support research and development. Those who provide this support can, and do, influence the course of science and technology simply by choosing the areas they favor. (Science and technology are thus subject to considerable social direction.)

Let us consider the effects of extracting wealth from the ecosystem, which, together with the earth's mineral resources, is the source of all the goods produced by human labor. As wealth increases, so does the number of people it supports—for there is considerable evidence that increased wealth reduces mortality, which (if the birth rates does not also decline) leads to an increase in population. Since human beings are self-propagated, there is a built-in tendency for the population to grow as long as sufficient wealth is available to support the newly added people.

In turn, the increasing numbers of people tend to intensify all the activities that depend on people—science, technology, production, and the creation of wealth. It is sometimes supposed that this self-accelerating interaction between the increase in wealth and the increase in technological competence is bound to set off an explosive "population bomb" unless deliberate steps are taken to control the birth rate.

Actually, there is strong evidence that the process itself sets up a counterforce, which slows population growth considerably. This process, known as the "demographic transition," has occurred in most of the industrialized nations of the world. At first, in the early stages of the eighteenth-century agricultural and industrial revolution, increasing wealth reduced mortality, so that—with birth rates unchanged—populations grew rapidly.

Later, with a further improvement in living standards, in the nineteenth century, birth rates declined and population growth slowed down. The reasons for this change are not biological but social. Especially impor-

tant is the changing role of children. When living standards were relatively low—for example, in the early stages of the industrial revolution—the labor of children was essential to the family's survival. Later, with improved living standards, adult labor became sufficient to maintain family income; compulsory schools were established, and the children, instead of being economic assets, became economic liabilities. At the same time, as social services improved, parents were less likely to depend on children as a form of old-age insurance.

The natural result was a reduced birth rate, which occurred even without the benefit of modern methods of contraception. Thus, although population growth is an inherent feature of the progressive development of productive activities, it tends to be limited by the same force that stimulates it—the accumulation of social wealth and resources.

A kind of self-propagating tendency can also be recognized within the areas of science and technology, which represent an accumulating, evolving assemblage of facts, ideas, and attitudes that are perpetuated by being recorded. The body of scientific literature and the practical, lasting evidence of technological achievements become starting points for further advances. In this sense, science and technology, like the population, are self-generating and, at least for the present, are growing at an ever-increasing rate. The scientific "information explosion" is exemplified in the growth curve of scientific papers; the number is doubling every fifteen years. Technology, as exemplified by the proliferation of new instruments and techniques generated by a germinal invention (for example, the transistor), also grows at an accelerating rate. Thus, science and technology tend to generate their own growth as long as the social factors on which they depend permit.

Self-generated growth is characteristic of industrial and agricultural production as well. Particularly in modern industrial systems, production leads to the accumulation of capital goods and financial resources, and therefore to the further expansion of production and of its wealth-creating capacity. All modern economic systems are designed to grow by means of such self-generated expansion. Clearly, these sectors of the system constitute another self-driven force that tends to expand the size of the over-all cycle of production and human activity on the earth.

All these expanding activities in the cycle of man in nature are dependent on the only part of the over-all system that is not created by human effort. The ecosphere existed before human beings did on the earth; its fundamental properties were established long before the appearance of man. And, in contrast to the human sectors of the system, this natural segment is intrinsically incapable of continued growth or expansion. The ecosphere and its mineral resources are fixed in mass. The solar radiation that drives the dynamic events in the ecosphere is, on the time scale of human life, fixed in amount. (It is gradually declining with the extinction of the sun over a period of many billion years.)

Moreover, the ecosphere is governed by cyclical processes that must operate in a state of balance. It is a fundamental fact of nature, then, that the base of human existence represented by the ecosphere and its mineral resources is limited in its size and its rate of activity. One can argue about whether the ecosphere has ever operated, either in its pre-human, natural condition or in its present one, near its intrinsic limit, but that there is some limit—that the system's operation does not permit indefinitely continued growth—is undeniable.

Kept in proper balance, the earth's ecological cycle is self-renewable, at least over the time scale involved in human history. On

this time scale, it can operate and support some number of human beings as one of its constituents more or less indefinitely. However, mineral resources that are used can move in only one direction—downward in amount. Unlike the other constituents of the ecosphere, mineral resources are non-renewable. Fossil fuels, such as coal, oil, and natural gas, were deposited in the earth during a special period of its evolution, which has not been repeated since (except for the slow accumulation of very slight modern fuel deposits, such as peat).

Once fossil fuels are used, the solar energy trapped within them millions of years ago is dissipated and lost irrevocably. The earth's store of metals was also laid down by not-to-be-repeated geological events, and this is also non-renewable. Of course, since matter is never destroyed, metals taken from the earth's ores remain on the earth after use and, in theory, could be used again. However, when iron, for example, is taken from the earth as a concentrated ore and is converted into products that are later scattered, as rust, across the face of the globe, what is lost, irrevocably, is energy.

Whenever any material is scattered from a concentrated origin and mingles with other substances, there is an increase in the property known as entropy, which involves a loss in available energy. This is perhaps more easily seen in reverse—as the fact that the gathering together of scattered material into an ordered arrangement requires the addition of energy. (Anyone who has tried to reassemble a jigsaw puzzle from its scattered parts has experienced this law of nature.)

Since any use of a metallic resource inevitably involves some scattering of the material, if only from the effects of friction, the availability of the resource declines constantly and can be reversed only at the expense of added energy, which is itself a limited resource. There is nothing inevitable about the high rate at which most metallic resources are now scattered after use and so lost to reuse. If we wished, we could recover nearly all the copper produced from ore and built into products and use it again when the products have outlived their usefulness. All that would be required would be to place sufficiently high value on the metal. This is exactly what has been done with gold, silver, and platinum—the precious metals.

As a result, only a small proportion of all of the precious metals ever mined has been lost to reuse. If all metals were valued as highly as gold, the problem of mineral depletion would be solved for a very long time. Depletion of metal is governed not so much by the amount of metal that is used as by the value placed on it, which determines its degree of reuse.

We come, then, to a fundamental paradox of man's life on the earth: that human civilization involves a sequence of cyclically interdependent processes that have a built-in tendency to grow, except one—the natural, irreplaceable, absolutely essential resources represented by the earth's ecosphere. A clash between the propensity of the man-dependent sectors of the cycle to grow and the intractable limits of the natural sector of the cycle is inevitable. Clearly, if human activity on the earth—civilization—is to survive, it must accommodate itself to the demands of the natural sector, the ecosphere.

The present environmental deterioration is a signal that we have failed thus far to achieve this essential accommodation. So much is evident from what we now know about environmental pollution. The fouling of surface waters is the result of our overloading of the natural, limited cycle of the aquatic ecosystem either directly, by the dumping of organic matter, in the form of sewage and industrial wastes, or indirectly, by the release of algal nutrients produced by waste treatment or leached from over-fertilized soil.

The pollution of water is a signal that its limited, natural self-purifying cycle has broken down under stress. Similarly, air pollution is a signal that human activities have overloaded the self-cleansing capacity of the weather system—that the natural winds, rain, and snow are no longer capable of cleaning the air. The deterioration of the soil is a signal that another system has been overdriven—that organic matter, in the form of food, is being extracted from the soil at a rate that exceeds the rate of rebuilding of the soil's humus. The technical expedient of attempting to evade this problem by loading the soil with inorganic fertilizer is capable of restoring the crop yield, but at the expense of increasing pollution.

All three ecosystems have been polluted by man-made synthetics such as pesticides, detergents, and plastics, and by the dissemination of materials not naturally part of the environment, such as lead and artificial radioactive substances; these materials cannot be accommodated by the self-purifying abilities of the natural systems, and therefore accumulate in places harmful to the ecosystems and to man. And environmental pollution by a metal such as mercury—and the depletion of this mineral resource—is a consequence only of our willingness to "lose" it because it is insufficiently valuable, according to present economic criteria, to be reclaimed. In sum, there is something gravely wrong with the way man uses the natural resources available to him on the earth.

PRAY FOR OUR POW'S

HON. JOHN R. RARICK

OF LOUISIANA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. RARICK. Mr. Speaker, the President has proclaimed October 20 as National Day of Prayer and urged all Americans to pray for American POW's. I wholeheartedly support this, but has he forgotten that October 20 is a Wednesday and the children are in school where they are forbidden to pray—the Supreme Court has ruled that prayer in schools is illegal?

This is indeed a strange situation—the President of the United States has called upon our people to do something that the American judiciary has forbidden. Either the President is playing a cruel joke on the American people, or he is actually a supporter of the prayer amendment—House Joint Resolution 191—in which case he should make his views known and insure congressional approval of this measure, one that is wanted and needed by the people, even if the national church organizations and various leftwing liberal leaders feel that the people should not be allowed to pray as they see fit wherever they may find themselves.

I insert a related news clipping in the RECORD at this point:

[From the Evening Star, Wednesday, Oct. 13, 1971]

PRAY FOR POW'S, NIXON ASKS UNITED STATES

President Nixon has urged Americans to pray for the speedy return of American prisoners of war in Southeast Asia on Oct. 20, which is proclaimed as National Day of Prayer.

His proclamation, issued late yesterday, also urged prayers for reconciliation among all peoples "and for progress toward ending

the divisiveness in our own land and in the international community."

The proclamation was issued in accord with the 1952 Congressional resolution directing the President to set aside a suitable day other than a Sunday each year as a national day of prayer.

SUPPORT FOR REPUBLIC OF CHINA MOUNTING—A LETTER TO AMBASSADOR GEORGE BUSH

HON. O. C. FISHER

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. FISHER. Mr. Speaker, one of the most momentous issues to be decided by the United Nations since it was created is the matter of the retention—or expulsion—of the Republic of China as a member of that organization. If that great advocate of peace and opponent of war and aggression should be expelled, which seems unbelievable, such an action will undoubtedly very directly affect the survival of the U.N. Its demise as anything resembling the objectives for which it was established would, in my judgment, be thereby foredoomed.

I include a letter I have today addressed to Ambassador George Bush. The letter follows:

OCTOBER 15, 1971.

HON. GEORGE BUSH,
U.S. Representative to the United Nations,
United Nations Plaza, New York, N.Y.

DEAR MR. AMBASSADOR: I have noted, with much approbation, press reports of your fight in behalf of our government in support of the retention by the Republic of China of its seat in the United Nations.

As you know, there is mounting evidence of a tremendous upsurge in support of Taiwan, as the time approaches for the UN decision. You are, of course, aware of the fact that 336 members of the House signed a declaration in support of Free China's position.

I am also confident that you are quite aware of the effect this action will have upon the future of the United Nations.

Moreover, I would hope you have made known to your counterparts how seriously the Congress treats this issue. The mood here is such that a reexamination of the annual U.S. contribution to the UN budget is very much on the minds of most of the members.

Again, let me commend you and respectfully urge that you intensify your fight in behalf of one of our best friends, the Republic of China.

I am taking the liberty of enclosing a copy of some remarks I recently made during the course of a Special Order in the House, during which many members discussed this subject.

With my very best regards, I remain
Sincerely,

O. C. FISHER.

[From the CONGRESSIONAL RECORD, Oct. 6, 1971]

STATEMENT OF O. C. FISHER

Mr. FISHER. Mr. Speaker, within a month the United Nations is to decide on the admission of Red China. Within a month a resolution in the United Nations is to be considered which would expel the Republic of China from the Security Council and from the United Nations.

If the latter should occur, such an action

would in my judgment mark the beginning of the end of the United Nations as a peace-keeping international establishment.

These developments and the actions that are taken must be of grave concern to all Americans who think of the United Nations as a place where nations are supposed to be engaged in the business of promoting peace and not in warmaking. On that score Red China simply does not qualify. Admitting the Peking regime would be like adding a known outlaw to a police board to maintain order in a community.

Above everything, the Republic of China must not be expelled from the Security Council. Its place there is secure from a legal and moral standpoint. It was placed there when the United Nations was established, as a spokesman for the people who live in Formosa and those who live on the Chinese mainland. That status and that responsibility has not changed. Its status was established then, and nothing has occurred since that time to change that status.

If it comes to that, the United States should and must exercise its veto power in that council, should that become necessary. It can assert that authority if it chooses, notwithstanding some legalistic gyrations indulged by some. If the United States is to remain a member of the U.N. it is high time, and it is imperative, that we assert ourselves there firmly and forthrightly, and not equivocate over legalistic theories.

Moreover, Mr. Speaker, if our veto authority in the Security Council should be challenged, and if by some fortuitous ruse or accommodation that challenge is sustained, then we should immediately withdraw from the United Nations.

Moreover, the time is overdue for the Congress to reexamine the amount of our contribution to the U.N. budget, and this fact is accentuated by the developments about which I have spoken. Indeed we must make crystal clear that we will take appropriate steps through the appropriation process to immediately reduce our commitment and henceforth have it relate to our population and the size of our national debt—as compared percentage-wise with the public debt of other member nations.

Mr. Speaker, the issue of treatment accorded our proven friend—and the friend and defender of peace and freedom, the Republic of China—is of transcendent importance. On this issue the United States must not equivocate or compromise. Regardless of whether the Peking regime is admitted or not admitted, we must insist, and indeed demand, that the Republic of China retain its rightful seat in the U.N. and in the Security Council.

I am convinced the vast majority of Americans subscribe to what I have said. It is the duty of the Congress, and it is the duty of all who represent our Government, to confirm our policies and conform our actions with the composite will of the American people.

MAN'S INHUMANITY TO MAN—HOW LONG?

HON. WILLIAM J. SCHERLE

OF IOWA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. SCHERLE. Mr. Speaker, a child asks: "Where is daddy?" A mother asks: "How is my son?" A wife asks: "Is my husband alive or dead?"

Communist North Vietnam is sadistically practicing spiritual and mental genocide on over 1,600 American prisoners of war and their families.

How long?

ADDITIONAL MATERIAL CONCERNING THE CONFIRMATION OF HOWARD P. MACE, AS AMBASSADOR TO SIERRA LEONE

HON. JOHN M. ASHBROOK

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. ASHBROOK. Mr. Speaker, on two recent dates, October 1 and 14, I inserted in the RECORD, material pertinent to the proceedings before the Senate Foreign Relations concerning the confirmation of Mr. Howard P. Mace as the new Ambassador to Sierra Leone. Two of the items which appeared in the October 1 remarks contain the testimony of Mr. John Hemenway before the Senate committee and the transcript of one of his hearings which are now in progress at the State Department concerning his selection out as a Foreign Service officer with that Department. Mr. Hemenway opposed the confirmation of Mr. Mace before the Foreign Relations Committee and appeared before that committee on two occasions with arguments supporting his position. Mr. Mace responded to Mr. Hemenway's charges in comments to the Foreign Relations Committee on October 4. Mr. Hemenway countered in his letter of October 13 to that committee with further arguments and attachments.

As I stated on October 14, I cannot judge the merits of this particular case but the issue is important enough to warrant a full airing of the charges and refutations. If Mr. Mace responds to Mr. Hemenway's letter of October 13, I will be glad to insert his response in the CONGRESSIONAL RECORD.

I insert at this point the second statement of Mr. Hemenway of October 4, Mr. Mace's reply, the Hemenway letter of October 13 with attachments and that part of the testimony of the Hemenway hearing of October 6 in which Mr. Mace testified before the State Department Grievance Committee in the matter of Mr. Hemenway's selection out as a Foreign Service officer.

The material follows:

SUPPLEMENTAL STATEMENT OF JOHN D. HEMENWAY

(Testimony of October 4, 1971)

("Retired" Foreign Service Officer, formerly Chief, Berlin Section, European Bureau, Department of State)

Mr. Chairman, on Saturday I reviewed my September 30 testimony before this Committee. For the record I would like to submit some documents your Committee might find helpful which pertain to one of the points I made on September 30, the dismissal of my Hearing Committee Chairman by Mr. Howard P. Mace during the Hearing.

MR. MACE NOT SOLELY RESPONSIBLE FOR ALL

FAULTS IN THE SERVICE

Mr. Mace is responsible for much wrong doing in the service—enough, I think, to disqualify him as ambassadorial material. However, I also want the record to show that I do not believe that he is solely responsible for all of the ills of the Foreign Service. The Service is large and complicated; the burden of administering it is shared. At the same time, it must be remembered that Mr. Mace, as Director of Personnel, is one of the 3-5

key officials in management charged with the responsibility.

The letters executing the strange and illegal act dismissing my Hearing Committee Chairman were signed by Mr. Mace. I directed my remarks solely at Mr. Mace because the subject of this Hearing is his fitness for high office. It may well be that more senior officials pressured Mr. Mace above into these actions. You may wish to ask Mr. Mace about that, based on the following excerpt from my Hearing transcript of March 30, 1971, the fourth session in the series. I will submit the entire transcript for the record, but the most pertinent section begins on page 36:

"Mr. Joyce. [Mr. Hemenway's attorney]... I think your rulings today will make this hearing—insure its fairness. But I am concerned, in view of General Hagan being severed from the payrolls of the Department, where that—what posture this committee will find itself in, come April 1. And I wonder if you have any statement that you care to make at this time.

"Mr. Toussaint. [Hearing Committee Chairman] I have heard nothing from the Department since the letter dated the 16th of March, which I received the 18th—telling me I would be terminated on March 31.

"I should add something, however, to make the record clear:

"At our last hearing—I believe it was in response to Mr. Hemenway's question—I referred to and made part of the record, Mr. Mace's March 16 memorandum. I would like to say now that I have satisfied my own mind that my termination was not initiated by Mr. Mace. On the contrary, Mr. Mace reacted to considerable pressure to send such a letter.

"I just want to be fair to Mr. Mace. He did not initiate that letter."

Mr. Chairman, the above is found on pages 36-37 of the Hemenway Hearing transcript of March 30. You will also find the Hearing Chairman's own version of these events on page 38 of that transcript and the reaction of one member of the Hearing Committee on pages 39-45. On page 42, there is a reference to yet another episode of harassment against a member of the Committee.

In carrying out its responsibilities, your Committee, Mr. Chairman, may wish to ask Mr. Mace who it was who pressured him to act in this illegal fashion. I know one thing for a certainty—he signed the letters. You will see from pages 45-49 that there is strong reason to believe that this pressure came from the Office of the Deputy Under Secretary of State for Administration (now called 'management'—see p. 49).

RELATIONSHIP WITH DEPUTY LEGAL ADVISOR FOR ADMINISTRATION

Mr. Chairman, on Thursday 30 September, your Committee heard Mr. Mace refer several times to his consulting and acting on the advice of his legal counsel. He appeared to justify his own actions by support from that counsel. Mr. J. Edward Lyerly, Deputy Legal Advisor of the Department of State for Administration provides most of the legal advice for both Mr. Macomber and Mr. Mace. At the Hemenway Hearing on 29 September, under oath, Mr. Lyerly denied any knowledge of important and significant events which were sworn to by another highly qualified witness. That witness is also a lawyer, a member of the bar of Louisiana and a member of the bar of the District of Columbia and also a member of the staff of the Legal Advisor's office. As a matter of fact she is the author of the first draft of what later became the basis of the material introduced in the Senate as Senate Bill 2023, concerning grievances.

Further, your Committee already has a copy of the Hemenway Hearing transcript of July 29, 1971 in which it is noted that Mr. Lyerly informed Foreign Service Officer

John J. Harter that he (Lyery) believed "there had recently been much loose talk of 'due process' in the Foreign Service, appearing to imply concepts which he considered incompatible with the essential precepts of the Foreign Service." (See pages 25-26 of that transcript.)

Does Ambassador-designate Mace agree with the opinion expressed by his legal advisor concerning due process? Just how dependent has Mr. Mace been on legal advice offered by Mr. Lyery? Your Committee may want to know, Mr. Chairman. It may believe that this could shed some light on the quality of Mr. Mace's judgment and therefore be pertinent to his confirmation. An interested citizenry certainly will want to know. No fair-minded man would want Mr. Mace to take entire responsibility for acts which were not completely his own.

NEED FOR AN OUTSIDE BLUE-RIBBON PANEL LOOK AT STATE

About two years ago I saw a letter written to Mr. Macomber signed by you, Mr. Chairman, in which you expressed a healthy scepticism concerning the ability of any organization like the Foreign Service to put its own house in order by self-imposed reforms, without outside help. Every honest Foreign Service Officer knows that your judgment was correct in this matter, as I told you myself about a year ago.

Your statement of 30 September concerning the present state of the Foreign Service—stated as one of three possibilities—with respect to grievances, just about sums it up:

"... (3) that there has been an element of rigid personal handling of these matters." (ref: p. 5, line 21)

Members of your Committee might have wondered why there are so few Foreign Service Officers available to testify at this Hearing, if matters are really as bad as described. They are not here because they are afraid, Mr. Chairman. They are afraid of reprisals and damage to their own careers for volunteering the truth. A few would come and talk openly—if summoned—but they can not afford to volunteer.

If this Committee desires more information concerning the quality of leadership provided by Mr. Mace from men who have watched him operate as Director of Personnel, I could provide the Chairman with the name of officers in key positions with knowledge of the facts. At least one would be ready to be responsive, but all would have to be subpoenaed, for their own protection.

MR. MACE'S RECORD

Mr. Chairman, even a quick perusal of Mr. Mace's remarks to your Committee last Thursday raises more questions about Mr. Mace than there are answers.

Senator Saxbe stated that Mr. Mace "has an excellent record as a Foreign Service Officer..." and that "he has carried out the policies of the Department." (page 4, line 10)

I do hope that Senator Saxbe and the Committee have not been misinformed. I wonder if the complete personnel records concerning Mr. Mace have been sent to this Committee for examination? No one knows better than you, Mr. Chairman, what your rights are under the Foreign Service Act to demand such records.

I note that Mr. Mace served under Ambassador MacArthur in Japan in his only really long foreign assignment. Mr. Mace was the Administrative Counselor of the Embassy. What did a career man like Ambassador Douglas MacArthur II think of his administrative support and the man responsible for it? Examination of efficiency reports from this period might also reveal something pertinent to confirmation.

The truth is, gentlemen that Mr. Mace is not even an expert in the personnel business. He depends, for his expertise upon middle

grade FSOs scrambling for the promotions he never had to win, because he entered as an FSO-2.

WITH REGARD TO MR. MACE'S LANGUAGE QUALIFICATIONS

It was Senator Pell who observed at the 30 September Hearing that Mr. Mace entered at a rather exalted rank. A man should not be penalized for starting at the top in the Foreign Service, but I mention it because it is germane to some very serious deficiencies in Mr. Mace's record.

The Biographic Register of 1971 lists the language qualifications of every officer in the Foreign Service who has achieved a "useful" knowledge of any language, usually defined as S-3, R-3 (in speaking and reading). On a scale of 1-5, 5 is the highest proficiency.

There is no notation in the Biographic register whatsoever that Mr. Mace is proficient in any language at any level.

Mr. Mace mentioned that he served two years in Germany and five years in Japan (page 19, line 2). He has said that he speaks some German, a limited amount of Japanese, and some Spanish. (Page 18, line 20.) That sounds fairly impressive.

The regulations state:

"It is the Department's... objective that each officer acquire, before reaching the senior level, at least a minimum professional level of proficiency (S-3, R-3) in two foreign languages as well as such proficiency of the language at each post as required by the particular assignment." (3FAM 871.4a).

It is also required that officers returning from overseas be tested in their knowledge of languages. Has Mr. Mace ever been tested? It would be a matter of record at the Foreign Service Institute. Is it really true, as he says, that he speaks some German, a limited amount of Japanese and some Spanish? Did he ever get this on the record? If not, why not? They were his regulations. Did he enforce them or even comply with them?

He required that junior officers comply. A Foreign Service Officer entering after 1963 could receive promotions only after he had a tested rating in a language at the "useful" level (3FAM 874).

Mr. Mace was promoted to FSO-1 in 1964. How could this happen? He knew no languages. Is this what Mr. Mace means by a tough competitive system? A double standard?

Charles Thomas had tested ratings in two languages: French and Spanish and had some others FSI could not test. John Hemenway had tested ratings in two languages: German and Russian. Both were fired after more than 20 years of government service without a pension despite a record that had no blemish.

But you can get to be an ambassador in Mr. Mace's service—if you come in at the FSO-2 level—without even having to study any languages. And you are counted as a career diplomat; (I wonder what else you do not have to study or be good at?) The motto of the Service in the future clearly will be: Don't come in the hard way, come in the Mace way!

MR. MACE'S DESCRIPTION OF THE SELECTION SYSTEM IS INCOMPLETE

On September 30, Mr. Mace offered this Committee a description of the selection system—surely the heart of any career service which regards itself as based on fair, tough, competition. (p. 24, line 19)

In fairness to Mr. Mace, I realize that he was attempting to present a capsulized description, but it is significant that he omitted any adequate description of the cone system. That system, under him, matured to become the very heart of a corrupt Service—speaking of the personnel mechanisms only. Under that system, an officer could be selected out of the Service—as were Charles Thomas and John Hemenway—without the promotion

boards as a whole ever examining their personnel records a single time! That actually happened to a number of officers. If one wound up in the bottom of his class, he was looked at by the entire board and might be retained; however, if you were rated in the solid middle of your class, only one or two Foreign Service officers might examine your file and you might ultimately be fired for excess time in class.

In all candor, Mr. Mace should have given you a fuller idea of his concept of "competition" within such a personnel system—where administrators compete only against administrators and are insulated against "unfair" competition from FSOs serving in political jobs. In the context of explaining "selection out" he should have gone into the "cone" system, at least to the extent of noting its relevance.

MR. MACE IS NOT REPRESENTATIVE OF THE BEST IN OUR SERVICE

The fact is that Mr. Mace has destroyed the careers of hundreds of men far better qualified to be an ambassador than he. The Foreign Service has many men of great talent. It probably has 1000 men better qualified right now to be ambassador to Sierra Leone than Howard Mace.

The question before this Committee, as I see it, is whether you really want to give quality and talent a chance in the Foreign Service, or whether you want to guarantee this man and the administrators like him of their reward for dutiful service shown to the men who control the ambassadorial assignments.

Mr. Chairman, may I request that the Hearing record be held open for this hearing for ten days so that I may submit additional material when it becomes available within a few days?

COMMENTS OF HOWARD P. MACE ON STATEMENT OF JOHN D. HEMENWAY, OCTOBER 4, 1971

As pointed out in my testimony, as Director of Personnel, I had no authority to promote or deny promotion to any Foreign Service Officer. In order to be involuntarily retired, an officer must be low ranked or fail to be promoted by successive Selection Boards, within the time required for his class. The membership of the Boards is different each year. Once decisions are made affecting individuals, as Director of Personnel, I was delegated the responsibility to sign individual letters of notification to individual officers who were not promoted.

With particular regard to Mr. John D. Hemenway, I wish to point out that he was involuntarily separated from the Foreign Service on October 4, 1969, for failure to receive promotion from FSO-4 to FSO-3, as the result of the findings of successive annual selection boards, within the requisite eight years in Class 4.

On January 2, 1969, knowing that he had not been promoted, he met with the Secretary of State and personally presented him with a list of issues alleging that his selection out was really the result of policy differences with his immediate superiors. Two former Ambassadors, then serving as senior Foreign Service Inspectors, were asked to look into Mr. Hemenway's charges to see if any injustice had been done. On January 14, 1969, the Inspectors sent their report to the secretary concluding that no injustice had in fact been done, and Mr. Hemenway was so informed. Although he would have been separated earlier in 1969, his appointment was extended until October 4, 1969. On September 26, 1969, Mr. Hemenway petitioned me, as Director of Personnel, for a grievance hearing on the grounds that certain "untrue, misleading and slanderous written statements were introduced into the record." The Department granted him a grievance hearing in accordance with existing regulations. These hearings have now convened for ten sessions and have a record running over six hundred pages.

The proceedings have not progressed as expeditiously as all the parties would have preferred; months were required to locate the many documents requested from time to time by Mr. Hemenway and to get security clearances for Mr. Hemenway's attorneys, the first of whom was replaced after his clearances had been completed; hearings have been postponed from time to time at the request of the Department and Mr. Hemenway's attorneys.

With respect to certain documents, time was required for the Department to consider whether it was proper to turn over to the Committee certain classified materials and certain documents of a privileged nature involving communications between the Secretary and senior officers in the Department and between the Department and the White House. The Grievance Committee has now been provided with all documents it has requested which have been located in the Department's files.

It was determined that, since this was the first proceeding of this kind, my instructions to the Committee should be of a broad nature, so as to allow the Committee some freedom to shape the proceedings as they developed. I addressed two letters to the Committee. The first instructed the Committee to follow such procedures as were set forth in the Department's regulations relating to grievances. The second letter advised the Committee that in the Department's opinion it was inappropriate to follow the Administrative Procedure Act. In addition, several consultations were held between myself and Mr. J. Edward Lyerly, Deputy Legal Adviser for Administration, and Mr. Toussaint, Chairman of the Committee, as to what procedures should be followed.

During the proceedings the Chairman, Mr. Toussaint, retired from the Foreign Service on April 30, 1970. He was given a limited Civil Service appointment on May 1, 1970, for a period not to exceed one year. On April 1, 1971, he was given an appointment under the Civil Service as a consultant to the Department so that the proceedings would continue in an orderly fashion. His retirement from the Foreign Service had nothing to do with his service as Chairman of the Hemenway Grievance Committee. Mr. Toussaint has prepared the attached statement regarding this matter and regarding Mr. Hemenway's allegations that I have not made myself available as a witness.

In my judgment, the Department has made every reasonable effort to assist the Hemenway hearings.

Attachment: Statement of Mr. Paul A. Toussaint, Chairman of John D. Hemenway Grievance Committee.

STATEMENT OCTOBER 1, 1971

Having had an opportunity to read the statement made by John D. Hemenway to the United States Senate Committee on Foreign Relations on September 30, 1971, I believe certain of his statements should be clarified.

Mr. Hemenway stated that Mr. Mace had willfully and illegally discharged the Chairman of the Committee hearing his grievance. I was informed in late January that my appointment in the Department of State would be terminated on February 28. After a conversation with Mr. Mace, confirmed in a letter dated March 15, from Mr. Mace, my appointment was extended to March 31, 1971. At the time I was assigned to an office in the Department conducting communications tests. Mr. Mace's extension of my assignment was based on the period of time I would be required to complete the tests and was unrelated to my duties as Chairman of Mr. Hemenway's Grievance Committee.

Mr. Hemenway also referred to Mr. Mace's refusal to appear before the Grievance Committee. Mr. Mace did refuse to appear before the Grievance Committee on July 23, 1971,

and stated in writing as the reason for his non-appearance the following:

"I feel that it would be inappropriate for me to appear before the Committee. Pursuant to the regulations, the Committee is required to report to me, and I am required, after considering the evidence, to make a decision. Howard P. Mace. 7/22/71."

Later, after Mr. Mace no longer held the title of Director of Personnel, he agreed to appear before the Grievance Committee on counsel requested a postponement to September 15. The new date conflicted with Mr. Mace's medical schedule, and he was unable to appear. Mr. Mace has since indicated he will appear at the next meeting of the Grievance Committee on October 6, 1971.

PAUL A. TOUSSAINT,
Chairman, Grievance Committee in the
Matter of John D. Hemenway.

OCTOBER 13, 1971.

The CHAIRMAN,
Senate Foreign Relations Committee, U.S.
Senate, Washington, D.C.

DEAR SENATOR FULBRIGHT: Today, October 13, your staff provided me with a copy of "Comments of Howard P. Mace on Statement of John D. Hemenway" dated October 4, 1971, and introduced into the record by Mr. Mace at the suggestion of Senator Pell.

Mr. Mace's "Comments" are so inaccurate and incomplete that I consider that they must be intended intentionally to mislead. I have prepared a brief analysis of Mr. Mace's misrepresentations, omissions and untruths which I attach to this letter, together with an accurate chronology of related events.

I am surprised by this effort to mislead your Committee, because the record concerning these events is fully documented. I enclose, for the record, a transcript of a hearing session held July 23, 1971, which clarifies some of the points Mr. Mace indicated he could not recall with clarity. The Hearing Chairman, Mr. Toussaint, can be called to verify these facts, as can the members of the Hearing Committee.

The enclosed material is sufficient to illustrate the misrepresentations Mr. Mace has attempted. I have no wish to extend unnecessarily discussion of this man's lack of competence. It must now be clear.

To cite but one example: Mr. Mace's "Comments" claim that the Chairman of my Hearing Committee, Mr. Toussaint, was given an appointment as a consultant to the Department on April 1, 1971 (see p. 3). In fact, Mr. Toussaint was not given that position until a week later. *Mr. Mace had the personnel orders back dated!* Mr. Toussaint was off the rolls of the Department of State for about seven days. Your colleague Senator Buckley of New York is informed because his office was instrumental in preventing this evident violation of due process and in having the Hearing Chairman reinstated after he was fired; the offices of Senator Thurmond and Senator Tower also were interested in this matter and helped a great deal to rectify this evident malfunctioning of justice. (Details appear in the attached chronology.)

In his "Comments" Mr. Mace did not even address several serious matters I called to the attention of your Committee in my statement of 30 September. I note that he makes no reference to such matters as:

Untruths in his own letters and other officially cleared correspondence;

Use of his official position for his personal ends—his favored treatment of his twin brother is widely known throughout the Foreign Service;

Setting aside clear unequivocal duty, apparently for reasons of expediency;

Misrepresenting his own policy positions—Mr. Mace's October 4 "Comments" provide an excellent example of this.

A number of other matters are directly pertinent to the basic interest of your Committee, which is, after all, considering the

matter of confirmation of Mr. Howard Mace as ambassador. Some of these emerged at my own Hearing.

Mr. Mace testified under oath at my own Hearing on 6 October, the day after he appeared before your Committee. A copy of that Hearing transcript, made available to me on 12 October, is also enclosed. I believe that members of your Committee will want to read that transcript because it suggests that Mr. Mace is not fit for the office of ambassador. Specifically, the Mace testimony of October 6 provides information on the following:

1. An official act by Mr. Mace that may have violated the criminal statutes of the United States in that:

Mr. Mace, as a U.S. official knowingly accepted the services of a person in the performance of an official duty, yet,

ordered that the person so designated to perform the official duty was not to receive compensation for those services. (See p. 39-43 of the transcript of October 6, questioning of Mr. Mace by Major General Hagan, former Judge Advocate General of the USAF Reserve.)

2. Slandering an employee (p. 27 of October 6 transcript.)

3. Open admission either of incompetence or a desire to conceal, in that:

Mr. Mace personally forwarded to the Secretary of State, under his own signature, in an area of his competence,

a draft letter he could not explain prepared for the White House concerning Mr. Hemenway; he claimed he did not understand the meaning of phrases of the letter he cleared and forwarded denigrating Mr. Hemenway (p. 9-10 of October 6 transcript). Further,

Mr. Mace attempted to suggest that the junior officer who drafted the material was to blame (p. 11) but then equivocated further. The full truth has yet to emerge.

4. Various other direct untruths stated under oath, of which—

One is his denial that John Hemenway called to his attention the applicability of an Executive Order (p. 16), giving Hemenway the right to be considered for Civil Service employment in the Department of State, and—

Another is Mr. Mace's denial that he made a bet with another officer concerning Hemenway's future (p. 28). In fact, as the Director of Personnel before the Hemenway Hearing ever got under way or even was requested, and Hemenway was searching for employment, Mr. Mace bet a lunch concerning Mr. Hemenway's future. That FSO will testify under oath to the facts at the next session of the Hemenway hearing.

Senator, I do not wish to labor such details before you and your Committee. I continue to recognize a duty with respect to this prospective appointment. I have furnished what I consider to be pertinent and appropriate details bearing on Mr. Mace's suitability for high office—but my list is illustrative only and could be longer.

In saying this, I earnestly hope to avoid personal rancor or attack of any kind. I am truly sorry that I have come by such special information of firsthand knowledge. But your Committee has the Constitutional duty to judge the merits of the case; I have the duty to present to that Committee the facts as they are known to me.

Sincerely yours,

JOHN D. HEMENWAY.

Attachments:

1. List of some of the inaccuracies contained in the paper, "Comments of Howard P. Mace on Statement of John D. Hemenway" of October 4, 1971.

2. Chronology of events taken from official Hearing Documents submitted in connection with the Hemenway Hearing.

3. Copy of Mr. Mace's "Comments" of October 4, 1971, already submitted to the For-

eign Relations Committee (for ready reference only).

4. Transcript of Proceedings of the Hemenway Hearing of July 23, 1971.

5. Transcript of Proceedings of the Hemenway Hearing of October 6, 1971, at which Mr. Howard P. Mace testified under oath (pages 3-52).

ALL REFERENCES ARE TO THE DOCUMENT ENTITLED: "COMMENTS OF HOWARD P. MACE ON STATEMENT OF JOHN D. HEMENWAY" DATED OCTOBER 4, 1971

1. Use of word "retired": Both Paul Toussaint and John Hemenway were selected out of the Foreign Service for failure to win a promotion. Note that on p. 1, Mr. Mace refers to Hemenway's affairs as: "... he was involuntarily separated from the Foreign Service ...", but on p. 3, Mr. Toussaint is said to have "retired from the Foreign Service."

2. Page two: "months were required to locate the many documents requested from time to time ..." Mr. Mace does not answer why so much time was required.

3. Page two: "months were required ... to get security clearances for Mr. Hemenway's attorneys ..." In fact, when the Department wanted to stall, it took six months to clear the first attorney, but when Mr. Mace wanted to expedite matters to look good (in March of 1971) it took only three days to grant Mr. Joyce a security clearance.

4. Page two: "hearings have been postponed from time to time at the request of the Department and Mr. Hemenway's attorneys." Chairman Toussaint considers this postponement minimal—it does not explain the delays.

5. Page two: "time was required ... to consider whether it was proper to turn over ... certain documents of a privileged nature ..." Two years? Note the Hemenway Hearing transcript of July 23 in which Mr. Lyerly told Mr. Toussaint that even if the request for the Parsons/Penfield report came from the Congress or a United States court it would not be released (p. 7) and Mr. Toussaint states his belief that Messrs Mace and Lyerly are claiming White House privilege without even having consulted the White House. (p. 8).

6. Page three: The top paragraph is, in fact, false. The Grievance Committee has not been provided with the classified section of the precepts to the Promotion Boards which were requested prior to October—other documents have not been provided.

7. Page three: The chronology gives a false impression. Acting under instructions from Mr. Macomber, Mr. Mace fired Hearing Chairman Toussaint twice, in defiance of regulations, as indicated by the detailed chronology attached. According to Mr. Toussaint, he was not given an appointment as a consultant on April 1, 1971, but seven days later.

Note in the chronology that Mr. Hemenway appealed for help in getting the Hearing started (one year delay at that point) from the Civil Service Commission. When the Department of State got word of this, they took action (Mace's letter of January 28 to Toussaint) by attempting to break up the Hearing before it got off the ground.

8. Page three: The statement that Mr. Toussaint's "retirement from the Foreign Service had nothing to do with his service as Chairman of the Hemenway Grievance Committee," is not credible. Mr. Toussaint was an FSO-3 up for promotion to FSO-2 in 1969 when he became Chairman. Falling promotion, he was "retired"—did this have nothing to do with the fact he was Hearing Chairman of the first Hearing ever held in the Department of State concerning a grievance? He was then re-hired for one year, during which there was little activity (Department stalled over the production of documents and security clearances.) When Hemenway made clear his intention to move

forward vigorously, Toussaint was fired again—did this also have nothing to do with the fact he was Hearing Chairman? When Hemenway pointed out this activity broke the regulations which required that the Department avoid even the appearance of a reprisal, Toussaint was granted a respite, but then fired again, despite Hemenway's protests and this time actually removed from the roles. Did this too have nothing to do with the fact that he was Hearing Chairman of the first Hearing ever held?

9. Mr. Toussaint's statement is to be viewed in the light of his desire to be fair to Mr. Mace. Mr. Toussaint knows that Mace was ordered to fire him by Mr. Macomber. However, the fact remains that, under orders or not, Mr. Mace signed the illegal letters of January 28, 1971 and March 16, 1971 dismissing a Hearing Chairman while the Hearing was in progress, an act that is against the regulations and illegal.

Attachments:
1. Chronology of correspondence and documents from November 20, 1970 to March 30, 1971.

2. Hemenway Hearing transcript of July 23 at which Mr. Mace refuses to come to testify (p. 6).—Mr. Mace later did testify under oath: Hearing transcript.

CHRONOLOGY TAKEN FROM OFFICIAL HEARING DOCUMENTS SUBMITTED AT THE HEMENWAY HEARING

SUMMARY PREPARED BY HEARING CHAIRMAN TOUSSAINT, AND ENTITLED "SYNOPSIS OF EVENTS"

(NOTE: Tab numbers refer to document tabs. The number of an item refers to Volume I or Volume II of "Synopsis of Events" of the Hemenway Hearing Transcript.)

VOLUME I

(NOTE: Items 1-44 omitted; available in official Hearing record.)

45. 11/20/70—Letter from Mr. Hemenway to Hon. James E. Johnson, Vice-Chairman, Civil Service Commission, seeking help of Commission to direct Department of State to hold hearing of Grievance Committee.—TAB S-1.

46. 12/21/70—Letter from Anthony I. Mondello, General Counsel, to Mr. Hemenway, explaining Commission's inability to intercede in his case believing it inappropriate; stating that inclusion by State Department of Foreign Service personnel in the U.S. within its grievance system was discretionary action of Department and not required by Commission's standards; and that new regulations issued by Commission which require agencies establish new and strengthened grievance systems effective April 1, 1971, exclude "Foreign Service officer, Foreign Service Reserve officer, and staff officers and employees appointed under chapter 14 of title 2, United States Code" from coverage.—TAB T-1.

47. 12/31/70—Letter from Gilbert A. Schulkind, Director, Civil Service Commission, Bureau of Inspections, to Mr. Hemenway concurring with Mr. Mondello's opinion and stating that they reviewed the grievance procedures and it is view of Commission that the State Department's grievance system follows general guidelines of Commission found in Chapter 771 of the Federal Personnel Manual; and also that delay in hearing due to inability on part of both sides to bring representatives together.—TAB U-1.

48. 12/31/70—Letter from Mr. Hemenway to Edward Lyerly, Deputy Legal Adviser for Administration, State Department, referring to his prior letter of December 4, 1970, in which he informed Mr. Lyerly that Donald H. Dalton and Molnar no longer represented him; asking location of documents in his case so that they may be examined; and to forward all correspondence to him until further notification.—TAB V-1.

49. 1/28/71—Letter from Mr. Mace to Mr.

Toussaint informing him that his temporary appointment of May 1, 1970, as a Retired Foreign Service Officer, GS-15, at salary of \$26,675, per annum will be terminated February 28, 1971.—TAB W-1.

50. 1/31/71—Letter from Mr. Hemenway to Mr. Mondello, Civil Service Commission, citing Service vs. Dulles as applicable to his hearing; and again requesting action by Commission to exercise its full authority and influence to insure State Department facilitates an immediate, fair and impartial hearing without further undue delay; require State Department to comply with its own regulations; and inform him whether Commission intends to require State Department to give fair hearing or whether only recourse is the US courts.—TAB X-1.

51. 1/31/71—Letter from Mr. Hemenway to Mr. Schulkind of Civil Service Commission denying delay of hearing has been due to representatives not being able to get together, but problem of General Hagan's "availability" as representative due to retirement from Foreign Service, etc. and delay being caused by State Department; again pointing out deliberate delay of State Department to have hearing, making documents available, delaying granting of clearances to lawyer; again requesting Commission to exercise all its authority to insure that he receives fair hearing and would be prepared within two weeks to do so.—TAB Y-1.

52. 2/10/71—Letter from Mr. Hemenway to Mr. Schulkind, Civil Service Commission, stating that Chairman of Grievance Committee, Mr. Paul Toussaint, whose appointment as a FSR will be terminated on February 27, 1971; and setting forth that disruptive effect on hearing will result from firing of Chairman; and again requesting Commission's help in pressing forward in defense of right for early and fair hearing.—TAB Z-1.

VOLUME II: HEMENWAY GRIEVANCE PROCEDURE, SYNOPSIS OF EVENTS

1. 2/10/71—Letter from John D. Hemenway to Anthony L. Mondello, Civil Service Commission, stating that Chairman of Grievance Committee, Mr. Paul Toussaint, whose appointment as a FSR will be terminated on February 27, 1971, and setting forth that disruptive effect on hearing will result from firing of Chairman; and again requesting Commission's help in pressing forward in defense of right for early and fair hearing.—TAB A-2.

2. 2/12/71—Letter from Mr. Hemenway to Gen. Hagan expressing concern over delays of hearing by State Department; explaining his request for Civil Service Commission to help in obtaining hearing; stating he wrote Mr. Lyerly of the State Department to inquire whether or not he could examine records that were set aside on May 1, 1970 for the hearing and his receiving no reply; his desire for a fair hearing to examine the merits of his grievance at an early date and request to Gen. Hagan to contact Chairman of Committee for meeting of Committee to be held on February 18, 1971 and his intention to inscribe the following items on agenda: inquiry concerning delays in providing documents and failure to answer correspondence promptly; statement to provide Chairman with necessary information about status of case; clarification of Committee's status; witnesses and documents still needed; schedule of meetings to be held on February 2, February 24, and February 26.—TAB B-2.

3. 2/15/71—Letter from Gen. Hagan to Mr. Toussaint requesting meeting of the Grievance Committee on February 18, 1971, at the Civil Service Building and stressing Mr. Hemenway's desire for a full and fair hearing as soon as possible and to have Committee clear up causes for elapse of time.—TAB C-2.

4. 2/15/71—Letter from Mr. Hemenway to James E. Johnson, Civil Service Commission, reporting two significant developments; one

firing of Chairman of Grievance Committee and requesting removal be postponed; two, meeting of the Committee be held February 18 and requesting experienced officer as an official non-participating observer; again requesting Commission to help in the hearing.—TAB D-2.

5. 2/16/71—Letter from Mr. Hemenway to James E. Johnson, Civil Service Commission, stating that Chairman of Grievance Committee is being fired under eyes of Commission, even as State Department asserts it is trying to follow regulations and intends to give fair hearing; and requesting that Commission send an observer to meeting of February 18.—TAB E-2.

6. 2/22/71—Letter from Gen. Hagan to Mr. Toussaint demanding that Committee be convened on February 25, and again on the 26th; stated he had not received written communication from Mr. Lyerly or anyone else as to his qualification to serve as Hemenway's representative; Mr. Lyerly to be called as witness by Hemenway during hearing; conflict of interest on Lyerly's part and should be kept from further interference in work of Committee; first items of business on agenda can be bona fides of members of Committee.—TAB F-2.

7. 2/22/71—Letter from Mr. Hemenway to Mr. Mace regarding postponement of Committee meeting by Mr. Mace in order to consult with Mr. Lyerly; requests that Lyerly not be involved in grievance proceeding except as witness; extension of Mr. Toussaint's employment until April 30, 1971; status of Gen. Hagan's appointment as member of the Committee since now retired from Foreign Service; requests action on this and other matters.—TAB G-2.

8. 3/16/71—Letter from Mr. Mace to Mr. Toussaint extending appointment to no later than April 30, 1971.—TAB H-2.

9. 3/19/71—Letter from Mr. Hemenway to James E. Johnson, Vice-Chairman, Civil Service Commission, thanking him for his role in moving forward Grievance Hearing, noting that hearing took place on March 3 and again on March 15 and another to be held on March 23; mentioned dismissal of Chairman of Hearing being deferred; Gen. Hagan to remain as member of Hearing Committee; asking for help of Commission in deferring dismissal of Mr. Toussaint for longer than March 31 inasmuch as Toussaint is US Civil Servant (not Foreign Service officer).—TAB I-2.

10. 3/27/71—Letter from Mr. Hemenway to Robert E. Hampton, Chairman, Civil Service Commission, citing violations of the Department of State in terminating the employment of Chairman of Grievance Committee as being 3 FAM 1821.5 "Each employee has freedom to seek adjudication of a grievance without fear of interference, coercion, or reprisal. This principle applies equally to any employee taking part in the presentation and adjudication of a grievance. . . ." and 3 FAM 1810 "Employees are assured complete freedom in presenting grievances, without fear of reprisal or discrimination. The Department emphasizes the responsibility of all officials to cooperate in the observance of this policy."; based on Chapter 771 of the basic Federal Personnel Manual of the Civil Service Commission; employment extended after correspondence with Mr. Mace; Gen. Hagan to remain on Committee; intent to prove lies and slanders introduced into official record; searching for explanation of Mace's action in dismissing Chairman thereby placing rights in jeopardy of Hemenway; denial of documents; intention to call Mace as witness; Mace being considered for ambassadorial post and appointment rumored to depend on outcome of Hemenway case; authority of Secretary of State, or Under Secretary, to clear his record fully.—TAB J-2.

11. 3/30/71—Letter from William R. Joyce, Jr. to Secretary Rogers stating his being retained by Mr. Hemenway as counsel before

the Grievance Committee; Mr. Toussaint's termination of employment and Gen. Hagan's termination as member of Committee; requesting action be taken to prevent two members from being forced off the Committee for economic reasons; concerned about client's constitutional rights by such actions.—TAB K-2.

(NOTE: Items beyond #11 in Book II omitted. On the 1 April, contrary to Mr. Mace's statement to the Committee, Mr. Toussaint was removed from the rolls; he was off of the rolls for about one week; he was then hired as a consultant on or about 7 April; if the records indicate that Mr. Toussaint was a consultant of the Department of State between 1-7 April, it is because the records have been back-dated. Mr. Toussaint verified this chronology personally on 13 October 1971.)

DEPARTMENT OF STATE GRIEVANCE COMMITTEE
HEARING, WEDNESDAY, OCTOBER 6, 1971—IN
THE MATTER OF: JOHN D. HEMENWAY, COM-
PLAINANT

Hearing in the above-entitled matter was
reconvened at 2:00 p.m., Paul A. Toussaint,
Chairman, presiding.

PARTICIPANTS

Members of the Committee:
Paul A. Toussaint, Chairman.
General Richard Hagan, Member.
Philip Burris, Member.
For the Complainant:
John David Hemenway, Complainant.
William R. Joyce, Esq., Counsel.
Harry Houston, Esq., Counsel.
Harry M. Hite, Employee Representative.
For the Office of the Legal Adviser, Depart-
ment of State:
Harold S. Russell, Esq.
Byron K. Huffman, Jr., Esq.

OBSERVERS

For the Bureau of European Affairs—Ger-
many:
Robert F. Schwind.
Elwood Williams, III.
Mr. TOUSSAINT. Mr. Joyce, are you ready?
Mr. JOYCE. Yes, I am.
Mr. TOUSSAINT. Let the record show that
the eleventh hearing in the matter of John
D. Hemenway is being held at two p.m., Room
4-H-15, Civil Service Building, 1900 E Street
Northwest, Washington, D.C.

Present are the members of the Commit-
tee; complainant, Mr. Hemenway; counsel,
Mr. Joyce and Mr. Houston; employee repre-
sentative, Mr. Hite.

Also present are representatives of the
Legal Adviser's Office, Mr. Russell and Mr.
Huffman. Representative from EUR/GER,
Mr. Williams and Mr. Schwind.

Also present, Mr. Ritchie, as an observer.
Mr. Cook, Mr. Milton Mitchell, Mrs. Hemen-
way, Mrs. Derickson, and Miss Gernand, Wil-
liam Greider, Washington Post. Mr. Mul-
lenhof.

In order not to delay Mr. Mace I will not
make any statement regarding the introduc-
tion of exhibits. I will delay that until some
future time. Whereupon Howard P. Mace
was called as a witness and, having been duly
sworn, was examined and testified as follows:

EXAMINATION BY MR. JOYCE

Q. Mr. Mace, would you please identify
yourself for the record.

A. My name is Howard P. Mace. I reside at
3605 Tristan Court, Alexandria, Virginia.

Mr. TOUSSAINT. Mr. Russell.

Mr. RUSSELL. Sorry to interrupt you so
early, but I think before we start to ask Mr.
Mace some questions, there is a more basic
question that I think we should resolve or
at least go a long way towards resolving, be-
cause it governs what is germane from here
on in, I think, in posing our questions to the
witnesses. And that is that in reading over
the transcript from the proceedings last time,
it seemed that there was some confusion in

someone's mind as to what is the grievance
in this proceeding. And I just wanted to
make sure that we all agree that this docu-
ment that I have here in my left hand, which
is dated September 26, 1969, addressed by
Mr. Hemenway to Mr. Mace, states in Para-
graph B the grievance which we are attempt-
ing to shed light on in this proceeding.

Mr. JOYCE. Well, Mr. Chairman, in response
to Mr. Russell's inquiry, I would like to state
that at that time Mr. Hemenway made that
statement as his grievance based on the
documents that were then available to him,
and since then, as of today, many more have
been made available, and we may want to
even expand that statement here in this
memorandum, as to the nature of the
grievance.

Mr. RUSSELL. Well, I don't want to prolong
this unduly, but I do think that that state-
ment poses a problem, because if I look at
this, I know what your grievance is, and I
know what questions are relevant and what
questions are not relevant to it. If you tell
me that you have not decided yet what your
grievance is, and that you want to read a
whole lot more documents before you decide
what it is, I don't see how we can proceed
and decide which questions are the proper
questions.

Mr. JOYCE. Mr. Chairman, I submit this
is a matter for the Committee itself to
determine.

Mr. TOUSSAINT. I have no objection to the
expansion of the basic grievance, provided
that we do not get into an area that is not
within the jurisdiction of this committee—
selection out, promotion, etc. Therefore, sub-
ject to the expansion and the linking of the
expansion to the basic grievance, we will be
somewhat relaxed about the line of inquiry.

Mr. RUSSELL. I think that is helpful, Mr.
Chairman.

General HAGAN. Mr. Chairman, wouldn't
you regard it as the right of counsel, either
for the Department or for Mr. Hemenway,
to amend or to ask for clarification in the
case of counsel for the Department—and for
Mr. Hemenway—to amend the original state-
ment? In other words, this expansion ele-
ment which you must have raised—we don't
regard this as a final and conclusion state-
ment.

Mr. TOUSSAINT. No, it is not final or con-
clusive. As far as expansion is concerned,
there are two ways of doing it. Either you
submit an amended earlier grievance, or you
can amend as you go along by way of testi-
mony. I think it would be a neater package
if you have reached the conclusion that
there is expansion necessary, and that it is
germane to the basic grievance, that the
expansion be put in writing.

Again, I am not trying to tell counsel how
to conduct his case. But I think for clarity,
the latter might be the more proper method.

Mr. JOYCE. If my recollection serves me
correctly, when Mr. Hemenway first appeared
without counsel in this proceeding, it was
so indicated.

Mr. TOUSSAINT. That is my recollection
also.

Mr. JOYCE. May I proceed, then, Mr. Chair-
man?

Mr. TOUSSAINT. Surely. Any further ques-
tion, Mr. Russell?

Mr. RUSSELL. I might add one more observa-
tion. I don't believe, although I have no
knowledge of my own, that the Department
has any problem whatsoever with your ex-
panding this along the lines you have
described. However, the committee may want
to consider whether the proper form for
doing that would be to—and I think you
have suggested something of this nature—
to submit an amended request to the Deputy
Assistant Secretary of State for Personnel.
I don't know whether you feel that would
be required or not. But I just suggest that to
you as something to think about.

Mr. TOUSSAINT. I don't think it is required.

I think the committee is aware of it and has been since early October, two years ago. So I think a communication to the committee would suffice. In which event I would obviously send a copy to Mr. Brewster, who replaced Mr. Mace.

Mr. JOYCE.

By Mr. JOYCE:

Q. Mr. Mace, would you please identify for the record your positions you have held in the State Department for the past several years.

A. From December 1, 1967 until August 15, 1971, I served as the Director of Personnel and Deputy Director General of the Foreign Service.

Q. Has the complainant in this proceeding, Mr. Hemenway, ever worked for you?

A. No, he has not.

Q. Has he ever performed any task for you?

A. No, he has not.

Q. Have you any basis for making any judgment other than his performance file for evaluating Mr. Hemenway's performance as a Foreign Service Officer?

A. No, I have not.

Q. Mr. Mace, I hand you here for your inspection a copy of an unclassified memorandum from you to the Secretary of State. I wish you would examine that. And I ask if you are the officer responsible in the Department for the matter contained in that memorandum.

Mr. TOUSSAINT. Mr. JOYCE, could you identify it as to date?

Mr. JOYCE. It is SS No. 12880. I don't know that there is a date on it. There may be at the end. I didn't see one on the front page.

The WITNESS. There is a date here, Mr. Chairman—it indicates it was prepared the 19th of July 1969.

Mr. RUSSELL. August, I think.

The WITNESS. Sorry, August.

By Mr. JOYCE:

Q. Are you familiar with that memorandum?

A. Yes.

Q. In connection with that memorandum, there is also transmitted therewith a draft reply which I will also hand to you to refresh your recollection. It is entitled "A Suggested Reply to Senator Strom Thurmond." Are you familiar with that document?

A. I don't recall having seen it before.

Q. This was part of that memorandum, now—No. 12880.

A. Yes, I gather that is the case.

Q. Now, in that document—I am not sure which page it comes up on on the copy you have in front of you—the statement is made in there, "The allegations made in his appeal to Secretary Rusk . . ." I was wondering what the intent was of that language, as used in that memorandum, or suggested reply.

A. I don't know.

Q. And there is also a phrase used in that paragraph, just before that portion I just cited to you, which says, "Because of the dust raised in the process of investigating the allegations made in this appeal . . ." I was wondering if you could tell me what was intended by that statement.

A. I'm sorry, I don't know.

Q. And would your answer be the same, then, for the next statement, "Because of some of Mr. Hemenway's activities over the past month . . ." which continues on in that same language—"his own activities."

A. My answer would be the same? What do you mean?

Q. What was meant by that expression in the suggested reply?

A. I don't know.

Mr. RUSSELL. Excuse me, Mr. JOYCE. Which statement are you referring to?

Mr. JOYCE. It is in that same paragraph. The sentence is, "Unfortunately, however, because of the dust raised. . ."

Mr. RUSSELL. Thank you.

By Mr. JOYCE:

Q. Well, I wonder if I could ask you the next question, then. In view of your prior answers, what were your sources of information concerning Mr. Hemenway's activities?

A. I would assume, not recalling the genesis of this particular suggested reply, that it must have been offered by the man who drafted the memorandum, Mr. D. C. Tice.

Q. And would you identify him for the record?

A. Yes. Mr. Donald C. Tice is a Foreign Service Officer who at that time was serving as a Special Assistant to the Director General and to me as Director of Personnel.

Q. For whom did Mr. Tice work at the time that this was prepared?

A. He worked both for me and for Ambassador John Steeves, who was then the Director General. I'm sorry. I believe at that time Ambassador Steeves had left that office and was succeeded by Ambassador John Burns. I am not sure of those dates. I think Ambassador Steeves left around the end of July of that year and Ambassador Burns came in the first of August.

Q. As of the date of this memorandum, in August of 1969, Mr. Mace, you knew, then, at that time of your involvement in this matter, I assume. Am I correct in so stating?

A. Yes.

Q. Did you consider at that time whether you should remove yourself from any further official action in connection with the Hemenway case, at that time?

A. I am not sure I understand what you mean—remove myself from action.

Q. Well, you realized that you were eventually going to sit as the judge on this matter, to review the record in this hearing.

A. Yes.

Q. But you did not feel that it was appropriate for you to remove yourself from having anything to do with the Hemenway case at that time, even though later you might be sitting in review on it.

A. Well, if you mean did I feel it was appropriate for me to have initiated this memorandum?

Q. Yes.

A. Yes, I think it would have been. I didn't consider removing myself from that, because I was the action officer in the office at that time from which this memorandum obviously emanated.

Q. Did you ever consider removing yourself as the reviewing authority from this matter?

A. No.

Q. Did you at any time have a discussion with Mr. Lyerly concerning the concept of due process as applied to the Foreign Service?

A. I don't recall having such a conversation.

Q. Did you ever discuss the concept of due process and its applicability to the Foreign Service with anyone?

A. I have in recent weeks, since I left my office, in connection with my hearings before the Senate Foreign Relations Committee.

Q. Mr. Mace, are you familiar with the Parsons-Penfield Report?

A. Yes, I am.

Q. Have you read it?

A. Yes.

Q. Are you aware of any conversation Mr. Hemenway may have had with Mr. Thomas L. Hughes concerning Mr. Hemenway's employment in INR?

A. Yes.

Q. May I ask how you are aware of that?

A. I am aware of it because in connection with my efforts to assist Mr. Hemenway in obtaining either a continuation of his employment with the Department of State or with other agencies, I do know that Mr. Hemenway went to see Mr. Hughes and I do not know that as a result of that interview Mr. Hemenway was not selected for a position in that bureau.

Q. Were you present at any conversations Mr. Hemenway may have had with Mr. Hughes?

A. No. You mean at the same time he was talking with Mr. Hughes?

Q. Yes.

A. No.

Q. Did you ever refer to this conversation in official correspondence?

A. Not that I recall.

Q. Well, I wonder, then, if you might explain, since you could not recall any record of not being present, how you knew what was written concerning this.

A. How I knew what was written?

Q. Yes.

A. I don't—

Q. In other words, where did you obtain your knowledge from?

A. On what?

Q. On the conversation between Mr. Hughes—

A. Oh—in a telephone conversation with Mr. Hughes.

Q. I see. Is it your custom to make a record of such telephone conversations?

A. No, it is not.

Mr. JOYCE. May I have a moment, Mr. Chairman?

Mr. TOUSSAINT. Yes.

By Mr. JOYCE:

Q. Did the substance of the phone call you had with Mr. Hughes relate to the possibility of two INR positions that Senator Thurmond might have mentioned in a letter and which Mr. Hemenway was advised had been eliminated when he inquired about the possibility of such employment?

A. I think it may have been, yes. I don't know whether it was two or not. My recollection is that there was one position in INR in which he was interested.

Q. In connection with the conversation you had with Mr. Hughes, was there any reference made to bringing of political pressure to bear in order to get the employment?

A. No, not to my recollection.

Q. Let me just refresh your recollection on this point. If you would just take a look at the paragraph in that memo—we don't have to go into any great detail on it.

Mr. TOUSSAINT. Would you identify the memo for the record, counsel.

Mr. JOYCE. Tab C, SS 12880.

By Mr. JOYCE:

Q. Does that refresh your recollection on the matter?

A. Yes.

Q. And do you wish to change your answer in any regard?

A. Well, my reading of that is it indicated Mr. Hemenway had indicated he would bring political pressure. I don't recall Mr. Hughes having said that to me.

Q. Would this be something that really should be directed to Mr. Tice rather than to you?

A. Well, it might well be, because I believe that he, too, was the author of that memorandum, was he not?

Q. Mr. Mace, did Mr. Hemenway ever call your attention to his own desire for civil service employment within the Department of State?

A. Yes, I believe he did in a conversation I had with him.

Q. Did he ever call to your attention an executive order which gave him the right to be considered for such employment?

A. I don't recall that he did. He would, however, have had such right.

Q. And you would be the proper official in the Department of State to whom he should make such inquiry.

A. Yes. At least one of such people, yes.

Q. What did you tell Mr. Hemenway upon his inquiry?

A. I don't recall him having asked me that.

Q. At that time, did Mr. Hemenway tell you that he could give you a list of the

names of persons who had been employed in the Department of State after they had been selected out for time in class or lower percentage of their class—do you recall that?

A. I don't recall him having done that.

Q. And you don't recall any conversation concerning exceptions to the rule?

A. With Mr. Hemenway?

Q. Yes.

A. No, I do not.

Q. Did you at any time while you were in your office as Director of Personnel suggest it would be wise for him to seek political pressure to assist him in his problem at the Department of State?

A. No.

Q. There was nothing improper in Mr. Hemenway's going to see you to discuss this matter of civil service employment, was there?

A. No. As a matter of fact, my recollection, Mr. Joyce, is that I suggested that Mr. Hemenway come to see me about continued employment in the Department of State or in other agencies.

Q. Do you recall a conversation that took place in your office on June 11, 1969 with Mr. Wile present, Mr. Williamson and Mr. Hemenway?

A. I don't recall that specific meeting.

Q. Okay. Now, Mr. Mace, you testified that you are familiar with the Penfield-Parsons report, and I would like to ask you in your capacity that you have maintained here at the Department of State for several years, do you think that persons affected by such a report should have the opportunity to confront the statements made in such a report and challenge those and have the right to do so?

A. I think that under the conditions under which that report was requested, and under which it was given to the Secretary of State, that I would say so.

Q. Are you familiar with the statement written by Messrs. Puhan and Johnpoll which are also part of this?

A. Only in a very general way, Mr. Joyce.

Q. You are aware that it is part of the present Penfield-Parsons report, it was made a part of it.

A. Yes.

Q. Well, may I ask did you understand the issues involved in the Puhan-Johnpoll report?

A. The issues involved?

Q. Yes—and the statements made therein. Did you understand them fully?

A. No, I do not.

Q. In order to save time, I wonder, Mr. Mace, whether you could tell this hearing committee what you told the Senate Foreign Relations Committee concerning material that could legitimately be classified. Would you mind summarizing your testimony that you gave on Monday, October 4?

A. Legitimately be classified?

Q. Yes.

A. I don't believe that on the Monday hearing that I was asked about that. I was asked questions by the chairman of the Senate Foreign Relations Committee about the matter of executive privilege between the executive branch of government and the legislative branch of government. I don't think there was any question about classification of documents.

Q. What was your answer to Chairman Fulbright on that question?

A. I told Senator Fulbright that I believed that the executive branch and the legislative branch being co-equals in the federal establishment as a whole, that there were cases which in my opinion would warrant one branch or the other withholding information from the other branch. That is, the executive not turning information over to the legislative branch or vice-versa.

Q. Now, did you put any conditions in your answer?

A. Well, the chairman asked me to give examples, and I cited an example, informa-

tion which the executive branch might have which had been procured on an intelligence basis, the divulging of which might jeopardize national interests.

Q. Does the Penfield-Parsons Report or the Puhan-Johnpoll statement, either one of them, contain any material which would fall in that category?

A. I don't know. I am not that familiar with the report.

Q. Mr. Mace, do you believe that promotion boards should be allowed to reach their own decisions under the regulations based on the personnel files and official record alone?

A. Yes.

Q. Is that what the regulations are designed to achieve?

A. Yes.

Q. And this is also what is intended by the precepts of the promotion boards?

A. Yes.

Q. Do you agree with a statement made by Mr. Bassin which for the purposes of this question I will just summarize, who said to this committee on September 15 that it would not be regular or according to the rules for oral information concerning performance to be conveyed to the promotion boards?

A. Yes.

Q. Do you know what information if any was conveyed to the promotion boards in the case of John Hemenway?

A. No, I do not.

Q. Do you know a Mr. LaRue Lutkins?

A. Yes.

Q. Did Mr. Lutkins work under your supervision and direction?

A. Yes, he was for a period during my tenure—he was Chief of the Performance Evaluation Division under my jurisdiction.

Q. I would like to show you a letter signed by Mr. Lutkins, dated March 21, 1969, which has blacked out the name of the person to whom it is directed so that he doesn't become involved—it has nothing to do with this present proceeding. But the principle involved does. And I would like to have you take a look at that and have your comment on Mr. Lutkins' statement there, and ask whether you agree with it.

MR. RUSSELL. Mr. Chairman, may I ask if this is a document which is in evidence?

MR. JOYCE. It was furnished to us by—this was given to us by the employee himself who just asked that his name not be used. But we can identify him if necessary.

MR. TOUSSAINT. Are you submitting this as an exhibit?

MR. JOYCE. I wanted to ask him first if he would agree with the statements made by Mr. Lutkins, who worked for Mr. Mace.

MR. RUSSELL. I think to hand the witness a document in which half the document has been blacked out is irregular at best. We have no idea what the missing paragraphs say.

GENERAL HAGAN. Counsellor, would you regard that as bad as being given part of the Parsons-Penfield Report and not the rest of it? Sir?

MR. RUSSELL. I'm sorry. Would you say that again?

GENERAL HAGAN. I say would you regard that, this handing of this document to Mr. Mace, as being in the same category as making available part of the Parsons-Penfield Report without the rest of it?

MR. RUSSELL. No, I would not at all. To my knowledge, unless Mr. Joyce can throw some light on the matter, there is no question of executive privilege involved in this letter. Unless Mr. Joyce would like to tell us that the President is the author of the letter.

MR. JOYCE. Well, I would just like to restrict my inquiry alone to whether Mr. Mace agrees with the statements made by Mr. Lutkins there in the sections that are there. As I understand, the section blacked out related to the man, would identify the per-

son, who I don't think should be burdened with that in this proceeding.

MR. RUSSELL. Well, I think that Mr. Mace can respond to that statement which is now out of context within that frame of reference. But I don't know how meaningful that is to you.

THE WITNESS. Before doing that, I would like to go back to your previous question, which I think relates to this, does it not?

By MR. JOYCE:

Q. Yes.

THE WITNESS. Would you mind reading the previous question Mr. Joyce asked.

(The reporter read the question as requested.)

MR. BURRIS. Mr. Chairman, could the committee be aware of what the document is, so we can understand what it is.

MR. JOYCE. Mr. Mace, would you show the document to the members of the committee.

THE WITNESS. My reading of that memorandum signed by Mr. Lutkins is that it relates to the findings of a selection board, and the question was the nature of those findings. That is why I asked you if it relates to the first question, because as I understand that report, it is an explanation of the findings of the selection board upon the completion of its work, not upon the selection board while in session. Because as I understand the question was why did whoever's name is blocked out get a low ranking, and this is an explanation of why the board reached that decision.

MR. RUSSELL. Mr. Chairman, could we wait for just a moment until we have all had a chance to look at it? I don't think any of us have any idea what this interesting document is.

While we are waiting, this is the second document, Mr. Joyce, today which I understand—I understand you have problems with documents of your own, but this is the second document today which you have used which has not been turned over to us.

MR. JOYCE. I just turned the first one over.

MR. RUSSELL. I presume you will turn over the rest of those documents when you are able. But we would like to get an unexpurgated version of that letter.

MR. JOYCE. I will use my best effort.

MR. RUSSELL. I would presume that we will accept your word as an honorable gentleman that that letter only has removed the name of the author and there are not any paragraphs of substance that have been removed.

MR. TOUSSAINT. Possibly for Mr. Russell's peace of mind, we might do it this way. Would you be prepared to show me the entire letter and at a subsequent meeting I can make the statement either that the excised statements do not relate to the basic—

MR. JOYCE. If we don't have it, Mr. Mace undoubtedly has it in his office—one way or the other.

THE WITNESS. No, I wouldn't have it in my office.

MR. HEMENWAY. Mr. Lutkins' office. It is easily traced by the date and signer. It is a simple matter to find out of PE files.

By MR. JOYCE:

Q. I will limit my question, Mr. Mace, to a very simple one. Do you agree with the statement in that letter which says, "It is a common accepted practice for boards to consult officers in the O and other areas of the Department in cases where they feel a need for information to supplement that contained in the performance records available to them."

A. No, I do not.

MR. RUSSELL. Mr. Chairman, could we see the document?

MR. TOUSSAINT. Yes.

By MR. JOYCE:

Q. If that had been done, Mr. Mace, would that have been proper without indicating that in a memorandum?

A. I don't understand.

Q. In Mr. Hemenway's case, for example.

A. I don't understand your question. Would what have been proper?

Q. To have consulted officers in the O or other areas of the Department where they feel that they need more information, to supplement that contained in the performance records. Now, I am asking you here in connection with the Hemenway case, would that have been proper without indicating it in a memorandum, that such consultation had been made?

Mr. TOUSSAINT. You are asking, counsel, if this was done in the case of Mr. Hemenway, should not a memorandum to that effect have been inserted in the record?

Mr. JOYCE. Right.

The WITNESS. You are asking me if a statement—to that effect had been made with regard to Mr. Hemenway, should it have been made a matter of record?

Mr. TOUSSAINT. If inquiries had been made outside by the board of Personnel in O or other areas, should not the file have reflected that this was done by the board?

The WITNESS. Yes, I think it should have been done.

By Mr. JOYCE:

Q. Were you ever consulted in any way or contacted in any way that can be construed as a consultation either formally or informally?

A. Consultation?

Q. Yes—by the board or some member of it.

A. No.

Q. Mr. Mace, have you ever referred to Mr. Hemenway as abrasive?

A. Yes, I did on one occasion, to Mr. Hemenway.

Q. Nobody else?

A. I believe Mr. Tice was present at that interview.

Q. Were either Messrs Wile or Williamson present?

A. I don't believe they were at this particular time.

Q. I have, I think, one last question. Would it be appropriate for a Foreign Service Officer who is up for consideration by his promotion board to invite and the invitation would be accepted by the chairman of the promotion board to his house for dinner? I am asking you a hypothetical question.

A. I think that would have to depend on the circumstances. I would say if they were very good friends and had known each other over a period of time, it would be appropriate. I think it might be—there are circumstances under which I could see it would be quite inappropriate.

Q. My last question—did you ever make any bets on the future of Mr. Hemenway in the Foreign Service?

A. No, sir.

Mr. JOYCE. That is all I have, Mr. Chairman.

Mr. TOUSSAINT. Mr. Russell.

Mr. RUSSELL. If I may take a moment to confer with my colleague.

Mr. TOUSSAINT. Surely.

By Mr. RUSSELL:

Q. Mr. Mace, we just have a few questions to, I think, try to clarify a few things, and perhaps add a little bit to what you have said.

You have testified that you did not ever work with Mr. Hemenway or have any personal communications, other than your meetings. That is, he never worked with you and you had not met with him, I guess, prior to the time his difficulties arose. Do you have any knowledge as to what his general reputation was among people with whom he worked? That is, his colleagues in EUR?

A. No.

Q. Did you ever hear him characterized by someone in EUR or by someone in the Personnel Office as a John Bircher, or a right-

winger, or someone who sees a communist under every bush?

A. No.

Q. I take it this means that you never heard Mr. Steeves refer to him that way, or Mr. Tice, whom you said was Mr. Steeves' special assistant and your special assistant. You never heard any of these gentlemen refer to him in that way.

A. No, I did not.

Q. Do you have any knowledge—did you then and do you today have any knowledge of what Mr. Hemenway's personal politics are?

A. No.

Q. Did you ever hear anyone in the Personnel Office or anywhere else, for that matter, discuss Mr. Hemenway's personal politics?

A. No.

Q. During your testimony, the question came up as to whether you had considered disqualifying yourself as a reviewing authority. It is true, is it not, that had you remained on as the reviewing authority this would have been at some point substantially in the future—in fact, as it turns out you left the post before review was even possible. So that is it possible that at some future time had you remained at that position and had you been around when these proceedings end—and none of us knows when that will be—is it possible at some future time you might, for a conflict of interest reasons, or some other reason—you might have considered disqualifying yourself as the reviewing authority?

A. Yes, I think that is highly possible, particularly in the light of the testimony which Mr. Hemenway gave to the Senate Foreign Relations Committee. I say that because that revealed to me how Mr. Hemenway feels about me. And I think on that basis alone I might have disqualified myself.

Q. You testified as to a conversation with Mr. Hughes, who at the time was the INR chief, I guess, is that right?

A. Yes.

Q. Would you tell us more about that conversation? Apparently Mr. Hemenway was seeking a position at INR and was Mr. Hughes anxious to employ him?

A. No. The circumstances were these. In a conversation I had had with Mr. Hemenway, in which I asked him to come to my office to explore with him opportunities which might exist, or which might be developed for his continued employment, either in the Department of State or in the Federal Government, we did talk about the possibility of a position in INR and it was subsequent to that he did in fact have an interview with Mr. Hughes. And my recollection of that interview was that rather than talking about the particular position which I had in mind in sending or suggesting Mr. Hemenway to go to INR, Mr. Hemenway talked about another position of which I was unaware. Mr. Hemenway in fact was a candidate for a position rather than an employee whom I had jurisdiction over to assign to a position in the Department.

Q. I am not sure I understand what Mr. Hughes' conclusion was as to his desirability of employing Mr. Hemenway.

A. Well, my recollection is that Mr. Hughes indicated he did not wish to employ Mr. Hemenway because Mr. Hemenway had—reading this correspondence refreshes my memory—that Mr. Hemenway had more or less insisted upon a particular position in INR.

Q. Well, turning back to this letter, which was apparently drafted by Don Tice—there was a memorandum then put on it so that actually it read that the memorandum was from you to the Secretary. And I understand you were not the draftsman of this. There is a paragraph in here that you were asked about and you said you were not sure what it meant. And the paragraph says, "Unfortunately, however . . ."—let me read the whole thing. "The possibility was explored that Mr. Hemenway could be assigned for

this approximately one year additional service to a position in the Department of State of the kind you mentioned in your letter. Unfortunately, however, because of the dust raised in the process of investigating the allegations made in his appeal to Secretary Rusk, and because of some of Mr. Hemenway's own activities over the past month, it was not feasible to place him in such a position."

I don't want you to read Don Tice's memorandum—but apparently at one point you saw that, and at one point I think you probably had a clearer idea as to what that meant. Is it possible that he was referring to, in part, at any rate—to this difficulty he had had with Mr. Hughes, where you tried to arrange something with Mr. Hughes and Mr. Hughes didn't want him, and—you think that that perhaps is what Mr. Tice is referring to in the paragraph?

A. That is possible.

Mr. JOYCE. Well, I think Mr. Tice would be the best authority on that.

Mr. TOUSSAINT. I think the best evidence in that case would be Mr. Tice. As I understand it, Mr. Mace, as is done in the State Department, this particular letter was staffed out and the work was done, clearances obtained, and the finished product was laid on your desk for you to sign.

The WITNESS. Yes, that would be the normal procedure.

Mr. RUSSELL. Well, my inquiry is entirely speculative, I recognize. But I just don't want anyone in the room to feel that Mr. Mace is trying to be evasive or anything of the sort. I think the explanation you have made, and I have tried to provide an explanation—and I think that if counsel wants to find out what this paragraph was intended to mean, I think he is correct that we should call Mr. Tice.

Mr. JOYCE. Well, I would just like to make an inquiry if I may at that point, Mr. Chairman. Is Mr. Mace now disavowing any responsibility for the memorandums that were transmitted here? Is he trying to shove it off on Mr. Tice—the responsibility for them?

The WITNESS. You are asking me that question?

Mr. JOYCE. Yes.

The WITNESS. I assume responsibility for any memorandum which bears my initials. This one does. Therefore I am responsible.

Mr. RUSSELL. Mr. Huffman has raised a question I think we should have clarified. That is, he is stating his suspicion that this Department of State suggested reply is not in fact an attachment to Mr. Mace's memo. Is that correct?

Mr. TOUSSAINT. If you will look at the last page of the memo, Mr. Russell, I think you will find three tabs. One is a suggested reply to—Harlow to—

Mr. RUSSELL. I think that is right.

Mr. TOUSSAINT.—whoever it was.

Mr. RUSSELL. This actually is incomplete without the Elliott-Kissinger covering. There is another piece to go with this.

Mr. HEMENWAY. How long has the committee had this memorandum, Mr. Chairman—the basic memorandum? The last six months has it been available to the committee?

Mr. TOUSSAINT. I don't believe so.

Mr. HEMENWAY. All but Tab C.

Mr. TOUSSAINT. No, not six months. I would say at the very most seven or possibly eight weeks. And the Elliott-Kissinger memorandum that I received I believe last week.

Mr. HEMENWAY. With the help of Mr. Russell.

Mr. TOUSSAINT. Precisely.

Mr. HEMENWAY. Who would have presumably known where it fit in the memorandum.

By Mr. Russell:

Q. We got into a discussion, Mr. Mace, earlier of the possibility that at times selection boards request information beyond the performance reports. I believe you testified that any information beyond what appears on the reports is normally not considered

regular that that be communicated to the panel. But isn't it true that under the precepts in most years—and I am not personally familiar with the precepts in all years—maybe we have an expert here who is—but is it not normally true that medical and security information may be requested and may come into the selection panels above and beyond what they see in the performance reports?

Mr. JOYCE. Excuse me, May I inquire, Mr. Chairman, is counsel paraphrasing one of my questions?

Mr. RUSSELL. Certainly not.

Mr. JOYCE. I just wanted to make that clear.

Mr. TOUSSAINT. No, I don't think he is. I think he is developing along an entirely different line.

Mr. JOYCE. I'm sorry.

The WITNESS. Yes. I don't know—it has varied from year to year. But I think generally speaking security or medical information may be requested by the board.

By Mr. Russell:

Q. So that a blanket statement that any material beyond the performance reports cannot properly be requested by the board is really—that blanket statement is not the case. There are other kinds of information that can be—that the boards can request and do.

A. Yes.

Q. In the case of Mr. Hemenway, do you know of any material other than what was in his record which reached the boards?

A. No.

Q. As to the Parsons-Penfield report, you stated that you were not sure if it contained privileged matter. However, didn't Mr. Lyerly, Deputy Legal Adviser for Administration, at one point take the position that as a legal matter there were portions of the Parsons-Penfield report which were privileged material, the kind that you described earlier?

Mr. JOYCE. I object to that on the grounds it is hearsay.

Mr. RUSSELL. Hearsay, Mr. Joyce, has never been a problem before this committee.

Mr. TOUSSAINT. I was about to say that we have knocked over every fence that they have ever built in the rules of evidence, starting with Wigmore, I think. I don't think we would suffer much by knocking another one down.

Mr. RUSSELL. We had about a quadruple hearsay from your last witness that I would like to remind you of.

General HAGAN. Counsellor, if you have any comments, would you please address them to the chairman. We intend to maintain decorum here.

Mr. RUSSELL. I'm sorry, General.

The WITNESS. Mr. Chairman, has a question been addressed to me?

Mr. TOUSSAINT. Not yet.

Mr. RUSSELL. No. We are between questions.

By Mr. Russell:

Q. Did you have anything to do with the preparation of the Parsons-Penfield report?

A. I did not.

Q. Did you have anything to do with the discussion of the report or review of the report?

A. I did not.

Mr. RUSSELL. I think that is all I have.

Mr. TOUSSAINT. I have one question. Were you at any time, Mr. Mace, a member of any selection board considering, among others, in his class, Mr. Hemenway for promotion?

The WITNESS. No. As a matter of fact, I have never been a member of a selection board.

Mr. TOUSSAINT. So what transpired between a selection board in any given year involving Mr. Hemenway and anyone outside the selection board you would have no personal knowledge.

The WITNESS. I would not.

Mr. TOUSSAINT. Mr. Burris.

Mr. BURRIS. Mr. Mace, is it a rare occurrence for a Foreign Service Officer during the past few years, while you were Director of Personnel, to have been involuntarily retired through reaching time in class and not being recommended for promotion by a selection board?

The WITNESS. I would say it is a fairly frequent occurrence.

Mr. BURRIS. Thank you.

Mr. TOUSSAINT. Anything else?

Mr. BURRIS. No.

Mr. TOUSSAINT. General.

General HAGAN. Mr. Mace, in your former capacity as Deputy Assistant Secretary of State, I believe that you have been aware of these hearings. Have you been receiving transcripts of the hearing sessions of this committee, your committee, former committee?

The WITNESS. Yes. I am not sure I received them all. I received some of them.

General HAGAN. Have you read them?

The WITNESS. Some of them.

General HAGAN. Do you find them interesting?

The WITNESS. I have read better documents, more interesting documents.

General HAGAN. Fine. Now, let me ask you if you recall the issue at the inception of these hearings as to my personal capability, that is my qualification to serve under the regulations, the FAM. Do you recall that question or problem?

The WITNESS. Problem of—

General HAGAN. Of my qualification to serve. Do you recall that at the first hearing session of this committee the chairman questioned the competency of the committee and he questioned it largely on the grounds that I was not then an employee of the Department and hence unqualified to serve as a member of the committee due to retirement?

The WITNESS. Yes, I recall that. I don't think it was at the beginning of the hearings, though, was it? It was later on.

General HAGAN. As a matter of fact, it was at the very first session, if I recall, on March 3.

The WITNESS. Yes.

General HAGAN. And do you recall receiving a memorandum from the chairman of the committee thereafter, more specifically on March 4, in which the question as to the competence of the grievance committee was addressed to you?

The WITNESS. Yes.

General HAGAN. And you were called upon to rule as to my qualifications, you remember?

The WITNESS. Yes.

General HAGAN. Now, in the preparation of that position, did you have an opportunity to consult with all the appropriate staff sections of the Department of State, including the legal?

The WITNESS. I recall specifically with legal.

General HAGAN. May I refresh your memory by giving you a copy of the original of your memorandum, which has been entered in the record, counsel, as D-1 exhibit.

The WITNESS. I recall having consulted with the Legal Adviser's Office. I don't recall whether other units of consultation—I don't believe there were.

General HAGAN. But you did consult with the legal Adviser.

The WITNESS. Yes.

General HAGAN. The Office of the Legal Adviser—and you have the opportunity to get his interpretation of the appropriate regulations.

The WITNESS. Yes.

General HAGAN. And you recall further, Mr. Mace, as indicated in there, it was indicated that I was qualified to sit as a member of this committee.

The WITNESS. Yes.

General HAGAN. And you recall that the Department at that time that it did not

intend to recall me as a Foreign Service Officer to compensate me for this.

The WITNESS. Right.

General HAGAN. And do you recall further that the statement was made in your memorandum that I would not be hired as a consultant?

The WITNESS. Yes.

General HAGAN. Now, Mr. Mace, let me ask you—in your discussions with the Office of the Legal Adviser, did anyone say anything to you about the criminal statutes of the United States, about the acceptance of the services of a person by an official of this government without compensation?

The WITNESS. No, I don't recall that.

General HAGAN. No one ever alerted you to that fact?

The WITNESS. No, sir.

General HAGAN. So this is the first time you have heard any such matter, is that correct?

The WITNESS. Yes.

General HAGAN. Do you recall the portion of the transcript, the hearing of March 15, in which your memorandum of March 10 was read and presented to this committee and which, after the chairman had called for any comments or observations, that I then took this position; that I desired to make a statement to which I referred, and I then—I quote this, on pages 51 and 52 of the transcript, "My appearance as a member of this grievance committee and my participation in the hearing in the matter of John Hemenway will not constitute at any time a waiver on my part or by any other implication of law of any of my rights or causes of action derivable either by law, regulation or negotiation with the Department of State with reference to remuneration in this matter. I shall continue, subject to this statement, to serve willingly as a participating member of this committee."

You recall that statement?

The WITNESS. Yes.

General HAGAN. And do you recall that in another statement later that I indicated my intention, after the conclusion of these sessions, to pursue my legal remedies at law against the Department of State and its appropriate officials?

The WITNESS. I remember something along those lines, yes.

General HAGAN. You do have that notice. You have had that notice, as we went through these transcripts. I just want to get it clear, because I will never have another chance to ask you about this, and I do want to know that this matter came to you. And you did at all times have the benefit of the advice from the Office of the Legal Adviser.

The WITNESS. Yes.

General HAGAN. If you felt it necessary.

The WITNESS. Yes.

General HAGAN. Thank you on that score, Mr. Mace. I appreciate that. Now, I want to ask you a couple of questions, if I may.

As you have read, had occasion in your busy schedule to read the transcripts of the various hearing sessions, those that you have been able to read, have you and the rulings that you have had to make in your capacity—has the philosophy of grievance hearings, the progressive character of this, at any time, impressed you as an official of this government?

Do I make myself clear?

The WITNESS. No, you do not.

General HAGAN. First, I was not, for example, coming to my specific case—I was not qualified to sit. Then the Department, after more mature consideration, found that I was qualified to sit, albeit without compensation. Secondly, the Parsons-Penfield report came into issue early. First we couldn't see it. Then later we could see it in part. And then thirdly—and I am not sure whether this occurred during your tenure or not, Mr. Mace—but then thirdly, we would be privileged to see the whole thing.

Now, would you not call this a progressive development of a philosophy of hearing and the presentation of evidence to your own committee during the course of these hearings?

The WITNESS. Well, progressive in a sense that there have been changing opinions regarding the accessibility of documentation. Is that what you mean?

General HAGAN. That is right.

The WITNESS. I think that is a fair conclusion.

General HAGAN. That is a fair conclusion.

The WITNESS. Yes.

General HAGAN. Now, then, let's come back to a matter on which I already stand on the record, and that is the question of the adequacy of procedures for your committee to hold—

The WITNESS. Adequacy of what?

General HAGAN. Of the procedures for this committee. And I am sure that you already know that I have asked the chairman to convey to you at that time the entire matter of your providing adequate procedures as you were required by the FAM to this committee in conducting this, the first hearing in the history of the U.S. Foreign Service. Now, granted all those facts, and the progressiveness—progressive character within the limited definition that we have brought out here, would you say that you have given adequate guidance, after consultation with the Office of Legal Adviser, to this committee with reference to procedures, and if so, will you please explain your position.

The WITNESS. Well, I think—as you say, this being the very first hearing, it was my intention at the outset that this hearing be conducted with as wide latitude on the part of the chairman as possible. I pointed out—I think there have been two written communications from me to the chairman regarding guidance of the committee and its operations. I think that—if I may be so bold, I think the manner in which it has proceeded has not been expeditious and I think that matter is on both sides. I think the Department has not acted as promptly maybe as it should have, and I think the presentations have not been as timely as they might have been. It should have been conducted more expeditiously. That is not really related to guidance. But it could be in a way, in that a guidance could say—get on with it and get it over with. At the outset you may recall that I indicated to the chairman that the time limitations would be set aside in order that it not be hurried because there are certain aspects of this, as it evolved, that indicated that rapidity was not necessarily the best course of action.

General HAGAN. Right. So in conclusion, you would summarize your position in your former capacity as the Deputy Assistant Secretary for Personnel, that adequate guidance on procedures had been performed with reference to the responsibility laid on you by the FAM.

The WITNESS. Yes.

General HAGAN. Including the right to call witnesses.

The WITNESS. Yes.

General HAGAN. Swear them in, cross-examination, all the basic rights that are normally, Mr. Mace, included within the concept of so-called due process of law.

The WITNESS. Yes. As a matter of fact, I might add that I think that we have gone further in some cases than might have been indicated under a strict interpretation of the regulations.

General HAGAN. You have already had an instance here I might allude to today on the question of hearsay evidence.

The WITNESS. Yes.

General HAGAN. The committee has bound itself only by the concepts of germaneness,

materiality, relevancy, credibility, which of course is one of the matters. Now, in your examination in chief by Mr. Joyce, counsel for Mr. Hemenway, you indicated that with reference to the conditions under which the Parsons-Penfield report was assembled, or put together, that you did not feel or did not conclude that there was no right to confront statements made therein; is that correct?

The WITNESS. I am not sure that that is the exact context. I think generally speaking that is my conclusion.

General HAGAN. Generally speaking that is the flavor. Now, can you elaborate for the record those conditions. What do you mean by the conditions under which the Parsons-Penfield report was put together?

The WITNESS. Well, I meant that as I understand it the genesis of the Parsons-Penfield report goes back to a series of statements which Hemenway had given to the Secretary and which the Secretary, based on his conversation with Mr. Hemenway, felt ought to be investigated. He in turn—the Secretary, in turn, asked two senior Foreign Service Inspectors to investigate and to report back to him their findings with respect to those allegations. The nature of that I think requires that the Secretary of State should be the one to determine the release of that information, to whom it should be normally given, because traditionally within the Department of State reports by inspectors have normally been felt to be privileged reports in the sense that if they interview people in confidence, that their comments are gathered in confidence, that it is not the normal course of events to make those reports available to the person about whom the comments are made. That in essence is what I meant.

General HAGAN. These are the conditions to which you refer.

The WITNESS. Yes.

General HAGAN. I have one more question I would like to ask Mr. Mace.

Mr. Mace, would you like to be a selected-out employee, Foreign Service Officer, seeking a redress, an alleged grievance in your mind, and have as Deputy Assistant Secretary of Personnel a man sitting in that—an official in that capacity with the same attitude of mind which you approached the Hemenway case? Now, I am asking you for your appraisal of your subjective attitude with reference to the Hemenway case. Would you, were the situation reversed, and were you the person seeking redress, would you like to have an official sitting in that same capacity with the mental attitudes and approach with regard to grievance hearings that you had with regard to the Hemenway case. Would this be a fair summarization of—

The WITNESS. That is a double transposition, as I understand your question.

General HAGAN. We are not transplanting you quite into the position of Mr. Hemenway. Suppose you deem that you have a grievance. Would you be willing to submit your request for a hearing to a man of the same attitude, same philosophy that you yourself had when this thing started?

The WITNESS. Yes.

General HAGAN. You would.

The WITNESS. Yes.

General HAGAN. Well, thank you very much, Mr. Mace.

Mr. TOUSSAINT. Mr. Joyce.

Mr. JOYCE. I would like to ask one question in the light of a question asked by General Hagan. You said, as I understood your testimony, that you would disqualify yourself from reviewing this matter of Mr. Hemenway if you are the Director of Personnel; is that not correct?

The WITNESS. I said if Mr. Hemenway had made statements about me that he made in the Senate Foreign Relations Committee on

last Thursday and this past Monday, and I were in the responsible position of reviewing that report, I might consider disqualifying myself.

Mr. JOYCE. Not because you are a witness in the proceeding here?

The WITNESS. No.

Mr. JOYCE. You don't think Mr. Brewster should disqualify himself also.

The WITNESS. No. I may have misinterpreted or may not have explained it. What I meant was that the very unkind things which Mr. Hemenway said about me in public on last Thursday and this past Monday would disqualify me.

Mr. JOYCE. That is all I have.

Mr. TOUSSAINT. Mr. Russell? General?

General HAGAN. I have nothing further.

Mr. TOUSSAINT. Thank you very much, Mr. Mace.

(Witness excused.)

Mr. TOUSSAINT. Let's take a short ten-minute recess.

(Whereupon a ten-minute recess was taken.)

Mr. TOUSSAINT. Are we ready, gentlemen?

SENIOR CITIZENS GET FARE DEAL

HON. BENJAMIN S. ROSENTHAL

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. ROSENTHAL. Mr. Speaker, I wish to commend KLM Royal Dutch Airlines for offering discount fares to senior citizens, and I would like to take this opportunity to call on all other airlines to follow suit.

I am especially pleased because this is just what I have been seeking with my bill, H.R. 8754, to permit the elderly and the handicapped to travel free or at reduced rates on the Nation's commercial air, rail, and bus lines.

Although KLM is not an American carrier, it does operate out of this country on international routes in direct competition with U.S. airlines. In fact, KLM's new fare is applicable only on its United States-Amsterdam route. Starting February 1, 1972, persons 65 and older will be able to travel that route on KLM for \$198 in the off season and \$228 in the summer. That is the same price as the youth fare for passengers 12 to 21.

Nearly all the airlines are wildly chasing after the youth market with all kinds of low-priced tickets, while almost totally ignoring those who probably need the benefits more.

The elderly and the handicapped, with their limited, fixed incomes and critical mobility problems deserve better treatment than they are getting from the transportation industry.

Meaningful fare concessions could well encourage these persons to travel more often. That would go a long way toward relieving some of the misery and boredom of advanced age and infirmity, permitting them to visit friends and relatives more easily.

Also the carriers would benefit as well because it would mean filling the surfeit of empty seats that currently plagues the entire transportation industry.

H.R. 7740—THE HOUSING INSTITUTIONS MODERNIZATION ACT

HON. RICHARD T. HANNA

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, October 14, 1971

Mr. HANNA. Mr. Speaker, now pending before the House Banking and Currency Committee and our counterpart in the Senate is legislation capable of having an historically significant impact on the home financing industry. We have observed with satisfaction the growth of this industry and the valuable role it has played in our Nation since Federal involvement in 1933. I commend wholeheartedly the accomplishments in this field.

We are, however, now facing a declared need for Federal action, which, according to some, is vital for the survival of this industry within the ideals set forth in its lengthy legislative history. Others, with equal persuasion, argue such actions are untimely and ill-advised—at least as presently proposed. I am referring, Mr. Speaker, to H.R. 7740 and S. 1671, the Housing Institutions Modernization Act, and within these proposals, specifically to the provisions for the conversion of federally chartered mutual savings and loan associations to Federal or State chartered capital stock associations.

There has been, I fear, too little considered public discussion of this issue—both within and without the industry. The Senate Banking, Housing, and Urban Affairs Committee has today just concluded 3 days of hearings on S. 1671. In these 3 days, highly qualified and widely recognized spokesmen in the industry have placed in the official public record the many and varied arguments and positions on the question of conversion.

These hearings were, to my mind, very timely. I have extracted from the appropriate testimony the comments relevant to the conversion issue and am including them in the RECORD:

STATEMENT OF MR. TOM SCOTT, CHAIRMAN OF THE LEGISLATIVE COMMITTEE, U.S. SAVINGS & LOAN LEAGUE

The very brief *Section 101* would provide for Federal capital stock charters. This is a subject which has been discussed for many years and which has been intensely studied by the U.S. League for the past two years. I think the orderly procedure would be to read the exact resolution adopted by our Board of Directors last November and reaffirmed in February of this year. It reads:

"Resolved, That the Board of Directors of the United States Savings and Loan League, acting as the official policy making body of the League, directs the officers and staff of the League to convey to the Federal Home Loan Bank Board a request that the Board promptly lift its moratorium on conversions from mutual to capital stock form of institution in accordance with a formula generally similar to the one set out in the report of the Joint Subcommittee of the Mutual and Capital Stock Committees, as reviewed at the meeting of the two Committees during the San Francisco Convention; with the Board being urged to provide in any conversion formula specific, stringent and across-the-board safeguards to prevent unfair gains by both the savings public and association

personnel; and that the Board authorize converting associations to enter into reasonable employment contracts with management; and also provide for association management to purchase in an equitable manner stock in the resulting converted institution.

"Be it further resolved, That the United States League support legislation by the Congress to provide for a capital stock charter under the Federal Savings and Loan System under which existing federally chartered associations and state mutual associations would have the option of adopting the capital stock form under an appropriate conversion formula as referred to in the first part of this resolution."

Capital stock is not a new concept in the savings and loan business. It has existed for decades in many states and is indeed the dominant form in the largest savings and loan state—California. Some twenty-one states now authorize capital stock associations and that number is growing.

The preservation of the dual system requires that there be available a Federal capital stock charter. Without such a Federal charter, every new institution choosing the stock form of organization will have no choice of charter but must operate as a state institution. Furthermore, Federal associations desiring the stock form must give up their Federal charter and convert to a state institution.

Stock associations have been fully recognized by the Federal Government in terms of eligibility for Federal insurance of accounts, membership in the Federal Home Loan Bank System, and qualification as a savings and loan under Federal income tax law. The question then is not whether capital stock institutions should exist and flourish, but whether they will exist only as state institutions without the desirable alternative of a Federal charter. The fact that the Federal Home Loan Bank Board has enthusiastically endorsed this legislation indicates that the capital stock operation will present no supervisory or insuring problem. In other words, the Federal agency involved, and the one with the most expertise on the savings and loan business, is willing and anxious to undertake the issuance of Federal stock charters and the conversion of existing mutual institutions into stock institutions.

STATEMENT OF MR. M. F. "MIKE" McBAN, CHAIRMAN OF THE LEGISLATIVE COMMITTEE, NATIONAL ASSOCIATION OF STATE SAVINGS AND LOAN SUPERVISORS

THE CHARTERING OF FEDERAL STOCK ASSOCIATIONS

Section 101 of the Act would give authority for the Federal Home Loan Bank Board to charter stock associations.

Two dozen of the states currently have state chartered capital stock institutions. In those states which do permit stock charters, the respective supervisors—of which I am one—seem generally to approve of the stock form of ownership and operation. To that extent, members of our organization support stock charting. However, our support does not extend to the current Bill, as written. As it stands, the measure would constitute a grave threat to the dual system. This threat could be minimized by changes in the proposed authority; the first relating to the extent of chartering authority, the others to the form of any conversions which might occur.

NASSLS urges the authority of the Federal Home Loan Bank Board to charter stock associations be extended only to those states in which the chartering of stock associations is permitted by state law or practice.

Chairman Martin has frequently expressed concern about disparity between Federal and state powers. It was out of fear that Federal mutuals would convert to state stocks, because no Federal stock form was

available, that the moratorium on conversions was invoked. Were the authority contained in the proposed legislation enacted, disparity would exist between Federal law and law in the over two dozen states which have not seen fit to permit stock charting. Just as Chairman Martin does not wish to see all Federals flee to the state system, we do not wish to preside over the conversion of state mutuals to Federal stocks in those states whose laws fail to provide for stock ownership. Chairman Martin told the Committee yesterday that, upon enactment of Federal chartering authority, the moratorium on conversions from Federal mutual to state stock would be ended. His position is that when that authority is available the Federal system will have as much to offer as the state system.

Should the Congress determine that Federal stock charters should be made available in the interests of insuring parity between Federal and state savings and loan systems, we urge you to reiterate the concept of the "two-way street" proclaimed in the 1948 Amendments to the Home Owners Loan Act be preserved by guaranteeing that the automatic conversion of Federal chartered institutions to a state charter upon the satisfaction of neutral standards no more exacting than those which are set forth in any statute for transformation of a state chartered association to a Federal charter.

Our concern is this. As the Regulations now stand, a Federally chartered institution must have Board approval before it can convert to a state stock. It is this fact that has enabled the Board to impose its ban on conversions. It is the fear of NASSLS that if the Board is permitted to continue to act as gatekeeper for conversions from Federal mutual to state stock at the same time, it is also, implicitly under the proposed Act, able to permit conversion from Federal mutual to Federal stock, the temptation to favor the latter over the former may be too great.

We have in Federal Law, precedent for what is, in essence, a self-executing or automatic conversion. When mutual associations wish to retain their form of organization, but exchange their charters, they may do so upon the satisfaction of a series of neutral objective tests. We urge your Committee to cause the stock conversion authority to follow this approach.

Although ample statutory power exists, the FHLBB has not entertained applications for conversion from Federal mutual to state stock. There is little doubt that the refusal by the FHLBB to consider application for conversion of mutual to stock is contrary to law. However, since no challenge to the present policy on such conversions has been mounted—it stands. The policy of the Board has discouraged several Federal mutuals from converting to a state stock charter. To that extent the policy has impeded the competition between the Federal and state systems, a valuable benefit of the dual system. And, I might add, a benefit the Congress sought to maximize when it gave authority, some 23 years ago, for conversions.

At our annual convention the NASSLS adopted the following resolution on conversions:

"The Federal Home Loan Bank Board is strongly urged to terminate the moratorium it imposed on the conversion of insured mutual institutions to a capital stock form of ownership without further delay or regard to any proposed changes in law or regulation."

As strong proponents of the dual system, we urge the Committee to endorse our recommendation that the unauthorized moratorium be lifted without further delay.

Although much has been written and said about the general subject of conversions, the FHLBB has not addressed itself in detail to means by which the conversion might take

place, to wit: the conversion formula. The key question in this respect is: how might the net worth in a mutual institution be handled in the event of conversion? Some have suggested that it be distributed pro-rata* to the savers coincident with the recapitalization of the institution through the sale of stock. Another plan calls for the depositors to receive, at no cost, common stock in an amount equal to their prorata share in the net worth of the converting institution. Under either formula the depositor would receive a sizable dividend. Much publicity has been given to the possibility of such windfalls.

We are troubled by the disruptive effect that the apparent availability of such bonanzas might have on the distribution of funds between savings and loans—both State and Federal—in our states. If institutions converting from mutual to stock are permitted to disburse all or any part of their net worth in cash or in a form freely convertible into cash—such as common stock—the flood of money from the state chartered stock institutions to mutuals which might convert could be enormous. We, therefore, urge the Committee to amend the present bill to provide that: As an incident to conversion, an association shall not transfer to the depositors without consideration its net worth or any interest therein.

The FHLBB has attempted to eliminate the incentive to shift accounts in the anticipation of conversion. As you know, the FHLBB has adopted a resolution to the effect that holders of accounts opened after the date the Act was introduced, would not be eligible to participate in the decision whether to convert or stock made available to depositors. We question the efficacy and adequacy of this approach.

STATEMENT OF THE COUNCIL OF SAVINGS AND LOAN STOCK COMPANIES BY TOM BANE BEFORE THE U.S. SENATE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS, OCTOBER 14, 1971

Mr. Chairman, our Council of Savings and Loan Stock Companies is appreciative of the time you have allocated to hear our testimony with regard to the provision of the Housing Institutions Modernization Act of 1971, introduced at the request of the Federal Home Loan Bank Board. Our Council is a national organization, representing capital stock savings and loan associations exclusively, with its membership open to all such institutions in the nation. Our Washington, D.C. offices are located at 1701 Pennsylvania Avenue N.W., Washington, D.C. 20006. We would like to commend Dr. Preston Martin for his development of this bill. We support it, except in some instances we request some modifications. These modifications were arrived at after careful consideration resulting from communicating with every capital stock association in the Nation, discussions with the representative of the Conference of Federal Savings and Loan Associations, and joint meeting with the National Association of State Savings and Loan Supervisors.

We agree with many of the positions taken by the Conference of Federal Associations and are in general agreement with the positions taken by the National Association of State Savings and Loan Supervisors. We will expand on the subject of mutual savings and loans converting to stock companies, on Section 401 regarding adjustment in assets, on Section 402 regarding definition of affiliate, and on section 403 regarding savings and loan holding companies.

We urge the Committee to enact legislation authorizing the federal chartering of

capital stock savings and loan associations. Our greatest service to the Members of this Committee will be to make them aware of the dangers connected with an improper conversion formula. We believe the mutuals should also carefully consider these same dangers. In doing so, it may seem that we are not enthusiastically in support of the federal chartering of capital stock savings and loan associations, but let me assure you that we are. Our Council led the way in encouraging it, and we are pleased that Dr. Preston Martin has proposed it. We have thoroughly studied the issue and all of the ramifications connected with it. If Congress establishes a federal charter for capital stock savings and loan associations, we will welcome such institutions into our membership. We are also willing to be of assistance to those mutual institutions who wish to convert to the capital stock form.

What we say here will have equal applicability to the issue of ending the moratorium on conversions of federal mutuals to state-chartered capital stock associations. It is imperative that Congress carefully analyze the impact conversions will have upon the present capital stock companies, the savings and loans that convert, those not wishing to convert, and their impact on the entire industry. If the formula is not carefully drafted it may cause a drastic shift of funds from one type of institution to the other. Financial Institutions can be severely harmed by the slightest change in their position in the financial community or in society.

The distribution of cheap merchandise by financial institutions is a recognized practice which causes savings to be transferred from one institution to another. Almost always the giving of gifts for accounts causes other institutions to engage in the same activity to maintain a competitive position. As stock associations we are concerned that mutual institutions will distribute millions of dollars worth of stock, convertible into cash, at each conversion. This give-a-way, when its availability becomes generally known, will in our judgement, create large transfers of funds from stock associations to mutual institutions which might, or are able to, convert. If cheap little gifts cause people to move their savings, what do you think will happen when there is real value involved? Because of rate control legislation enacted by Congress, stock associations will have no competitive means to meet this threat. We must rely on Congress for our protection.

We know that the FHLBB shares our concern. To quote from a letter from Dr. Preston Martin to the Chairman of this Committee:

"A cut-off date which is known to be subject to a revision might itself create a problem in that it might provide an inducement for temporary flows of funds to or from unconverted associations. It would certainly be against the public interest to adopt conversion policies which might disrupt the normal flow of savings into housing in any markets. This problem is not insurmountable, however, and could be dealt with in several ways, such as restrictions on advertising by associations concerning conversions."

While the FHLBB may be successful in preventing the "advertising by associations concerning conversions", it cannot control the news stories and articles in the various publications that will be not only interesting to write, but be interesting to the readers.

We have already communicated, by letter, some of our concerns to Dr. Preston Martin, and I would like to insert at this point in our testimony a copy of that letter.

"COUNCIL OF SAVINGS AND LOAN STOCK CO.,

"Sherman Oaks, Calif., September 30, 1971.

"Hon. Dr. PRESTON MARTIN,

"Chairman, Federal Home Loan Bank Board, Washington, D.C.

"DEAR PRES: Please forgive me for taking so long to answer your letter as to our views on the conversion of mutual S&Ls to capital stock companies. On the surface, the issue

seems simple, but the adoption of a conversion formula involves many complexities. If it is not done properly, it can have severe effects on all S&Ls, both mutual and stock. The danger to the newly converted stock company is the greatest of all.

"Before answering your letter, I communicated with every capital stock company in the nation for their comments. While they almost unanimously support federal chartering of stock companies with conversion provision, they have two concerns:

"1. Disintermediation

"2. In effectiveness of the cut-off date.

"I would like to discuss the main problem, and that is disintermediation. Most fear it gravely, and only a very few feel that the concern is exaggerated. The few who do not have great concern are mostly in areas where the competition between S&Ls is not strong, or they are mutuals who might benefit from disintermediation, or they are in some position without any potential loss to themselves if their judgment, no matter how sincere, is later proved to be wrong.

"Over 95% of the people with whom I have discussed the issue believe that if the depositor in a mutual is to be given any type of windfall, disintermediation will result—even if there are no conversions. If a mutual does convert, its new stockholders are going to be thoroughly indoctrinated on why they should put their deposits in a mutual and the newly converted stock company is going to suffer tremendous loss of deposits.

"The resulting shifting of funds will increase costs of operation, strain the reserves of the Federal Home Loan Bank System and increase regulatory problems.

"The suggestion that the depositor will never become aware of such windfall possibilities does not really provide much assurance. When the Citizens Federal application was filed, there were numerous articles in the San Francisco papers. The September 13, 1971 issue of Barron's carried the following paragraph:

"Mr. (Anthony M.) Frank figures the conversion (of Citizens Federal) will provide savers with a windfall of 10% to 15% on the savings they had on deposit on that date (3/20/70). He thinks the clamor by savers at other federal S&Ls to enjoy similar benefits will lead to other conversions."

"With this clamor will come disintermediation.

"There will be numerous speciality writers providing various publications with articles on "How to Get the Most for Your Savings Dollar". Publications like the Readers Digest are natural for this type of journalism. I have agreed with Tony Frank on almost every comment he has made during the past years on the S&L industry, and I heartily agree with him on his prediction that the "clamor" will be great.

"I strongly believe that the mutual institutions assets were accumulated because of two factors. The FSLIC and the efforts of management and employees. If any benefits are restricted to them, (including the FSLIC), disintermediation will be eliminated. If there is to be any windfall at all to the depositors in a mutual, the cut-off date will only deter disintermediation slightly. I really regret to say that the cut-off date will be that ineffective, but I must do so because on the long haul everyone knows it will have to be changed and will be changed. Your September 1st letter to Sparkman agrees on this point. Depositors, whether aware or unaware of the cut-off date will shift funds. After all, what do they have to lose? If the cut-off date is put into the statutes, it will make it a little more difficult to change and less subject to political pressures, but nevertheless, even the statute will someday have to be changed. As long as the windfall to depositors is possible, there is no reason why a depositor should not shift his funds to a mutual, "just in case".

"While the windfall today is 10% to 15%, the further away from the April 19, 1971 cut-

* Distribution pro rata based on the following formula: Total number of shares times amount of an individual savings account over amount of all savings accounts in the association equals number of shares to an individual saver.

off date that the conversion takes place, the greater the percentage will be because the assets of the association will grow while the number of eligible depositors and deposits will remain static or reduce.

"There are numerous solutions to the problems discussed above, but before those solutions can be constructed there has to be recognition of the problems and an agreement on the approach to be used. I believe a basis for any solution lies in the acceptance of the position that the depositor in a mutual cannot be given a gift of stock or bonus in cash. He can, at the most, be given the first right to purchase stock not allocated to be purchased by management and the employees. I know this is not an encouraging letter, but I am compelled to convey to you the feeling of the capital stock segment of the industry regarding the dangers that exist. I am also very happy that a man of your high intellect and caliber is Chairman of the FHLBB as this problem arises. You have the vision to see and the mind to recognize the problems. I know of no one who is better qualified to find the solution to the problems I have raised.

"Sincerely,

"TOM BANE."

The Chairman's introduction into the Congressional Record of the Michigan Plan is very helpful in that it gives a focal point for discussion. Section 514(d) of the Michigan Plan requires the gift of stock to the depositor in the mutual. Such a gift will bring about all of the detrimental things mentioned in our letter to Dr. Martin. We would like to examine them in detail.

First, let us consider what happens to the mutual association that converts to a capital stock association. One of its first requirements is to get a majority vote of its depositors.

To obtain that vote it must emphasize the benefits and value of the gift of stock they will receive if the association converts. If its conversion is successful under the Michigan Plan, of all the savers in the United States the depositors of this newly converted capital stock institution will know the value of having their deposits, not in a capital stock association, but in a mutual. As soon as they receive their stock, the only sensible thing for them to do is to withdraw their savings and re-deposit them in another mutual association, and bring pressure upon it to convert, so they can receive another windfall gift of stock. Not only will they do this, but they will brag to their neighbors and friends about how clever they are being, and will urge their friends to withdraw their savings from all capital stock associations and deposit them in a mutual.

The damage, though initially upon the newly converted association, will affect all capital stock associations in the nation as the public becomes aware of this windfall.

Some say our concern is exaggerated, that it will not be this bad, but can we afford to take that chance? If such a pattern develops, how fast can you move to stop it? How can you repair the damage once it is done? You can also ask yourself this question: If you had \$100,000.00 for deposit in a savings institution, and you knew that if it were in a capital stock association where you had no chance of a bonus, but that you could put it in a mutual, receive the same interest rate and have a chance for a large bonus and end up owning valuable stock in the company, what would you or any other sensible person do? Let me assure you, the saver and investor is becoming highly sophisticated. After all, as long as the interest rate is the same and the federal insurance is the same—what do you have to lose?

It has been suggested that institutions have converted before and there was not such a great impact as we predict. But those conversions were isolated and occurred many years ago before savings and loans became national institutions. The conversion pro-

gram you are now considering will be attended by national publicity, and savings and loan associations have grown greatly in the period since the last conversion. They also hold a stronger position in the stock market. Many of the large ones are listed on the New York Stock Exchange, not to mention the long list daily reported on the over-the-counter market.

We have attached to this statement samples of publicity already generated with just the contemplation of one conversion. The articles that will appear if the Michigan Plan is adopted nationally will be numerous. Financial reporters will have a field-day, informing their readers of the great potential bonus they can receive if they have funds in a mutual that is going to convert or may convert into a stock company.

To understand what can happen to an association that is involved in a conversion, one but needs to read the case between the FHLBB v. Elliott, 386 Federal Reporter, 2d series 42 (1967). In its facts is discussed Long Beach Federal S&L, which had been taken over twice by the FHLBB. A settlement of this supervisory case stipulated that Long Beach was to transfer its savings accounts (liabilities) to Equitable S&L, a stock company. Long Beach Federal was also to transfer enough assets to Equitable S&L to balance the transferred liabilities. What was left of the assets of Long Beach Federal was to be given to its depositors in the form of stock in Equitable S&L. On April 2, 1962, the day the FHLBB released Long Beach Federal, the savings accounts aggregated about 30 million dollars. Merger negotiations began on this date. By November 30, 1962, the savings accounts reached over 71 million dollars, a 230% increase. And this was when only what was left of a troubled mutual's assets were to be distributed.

The National Association of State Savings and Loan Supervisors, in Convention in New Orleans, Louisiana, on May 14, 1971, adopted the following amendment to their prepared resolution regarding the Federal chartering of Stock Associations:

"That in no event should all or any part of the net worth or interests therein be distributed to the depositors or share account owners upon conversion. This is not intended to suggest any prejudice to the rights of depositors or share account holders to their share of net worth in the event of liquidation of the savings and loan association."

To this point, we have discussed the effect the Michigan Plan would have on the newly converted stock company and the existing capital stock associations. Let us now direct our thoughts to the mutual association, the management of which does not wish to convert. Will it be left in peace? The answer is, obviously—No!

I had an occasion to talk to a mutual manager in an adjoining town to the one in which Citizens Federal is located. Citizens Federal being the one which now has a request into the FHLBB for permission to convert. This mutual manager told me that he had numerous calls asking when he was going to convert and when his depositors would get their bonus. Mr. Anthony Frank, a highly experienced man in the savings and loan business and a former Chairman of the San Francisco Federal Home Loan Bank is now an officer of Citizens Federal. Barron's, September 13, 1971, issue quotes him as thinking "the clamor by savers at other federal S&Ls to enjoy similar benefits will lead to other conversions."

Two things will happen to the mutual that does not wish to convert. (1) Either its depositors will withdraw their money and place it in a mutual more likely to convert, or (2) There will be a proxy fight, led by someone who may know nothing about running a financial institution, but just wants to take over and convert. So you can see, the Michigan Plan, or any other plan that gives a

bonus to depositors upon conversion, can and will have a detrimental effect on every savings institution in the nation. I might add also that commercial banks, who in the past years have solicited savings accounts, and most all of them have, will also feel the effect of savings being withdrawn.

Some thought should be given as to how the Michigan Plan might affect the Federal Home Loan Bank System, The Federal Savings and Loan Insurance Corporation and The Federal Home Loan Bank Board.

If you accept the possibility that the shifting of funds might be as we have suggested, then its effect on the above agencies is extremely detrimental. To obtain the huge amounts of funds to cover withdrawals, the FHL Bank would have to go into the market, in competition with savings and loans, banks and Treasury Notes. With the need to supply these funds to institutions nationally, the amounts needed may have an effect on interest rates generally.

Unfortunately, the interest rate charged by the FHL Bank for its advances during the past year reached as high as 7 3/4% and for those who had to borrow over 50%, that rate was 8 3/4%. This is substantially greater than the average yield on the loan portfolios of the institutions. Savings and loans could start operating at a loss. If some associations go into bankruptcy and if some savers who exceed \$20,000 in deposits lose money, the withdrawals can be accelerated for that reason alone.

The above set of circumstances could put a strain on the reserves of the FSLIC and a strain on the FHLBB to handle all of the supervisory problems.

Some may again think we are exaggerating the repercussions from an improper conversion formula. However, at the time of the drafting of this statement, all other groups had apparently not given the possible problems much, if any, thought, and we feel all possibilities should be expressed to you.

There are numerous ways that conversions can be accomplished without taking the chance of causing such chaos. We, of the capital stock segment of the industry, have talked to mutual managers who are considering converting. We are amazed that the simple rudiments of the capital stock form of organization are unknown to some of them, let alone a knowledge of the federal and state laws that give the stockholders protection and force in the institution in which they own stock. We do not suggest that the savers not be given the rights that Congress set out for them in case of a liquidation of a mutual savings institution. Congress gave the depositors those rights to the assets of the institution only upon liquidation. A conversion is not a liquidation. Our Council is ready, willing and able to help Congress enact a plan that will protect the rights of the depositors in a mutual and at the same time allow conversions when management desires to do so, without causing the shifting of funds or forcing mutuals to convert if they do not wish to.

We have a further criticism of the Michigan Plan. People have deposited their money in a savings and loan association because of the interest received and the Federal Insurance which guarantees the safety of their deposits. The associations have grown because of the expertise of the management. Rate Control Legislation enacted by this Committee sets the ceiling on the interest rates, which in reality sets the rate. The depositors have never really even contemplated any other benefit. To ignore the contribution management has made in building the association, and failing to allocate to management options to purchase stock in the converting association is contrary to our private enterprise system.

We urge that Congress face this issue squarely and enact into statute the guidelines for conversion. We suggest a cut-off date that is in the statutes along with a for-

mula that will not require revision of that cut-off date. A cut-off date that is subject to revision is useless as a tool to prevent a drastic shifting of funds. To leave the formula up to the FHLBB would mean with every change of administration there could be a new formula. Laws affecting financial institutions must have a long range stability.

STATEMENT OF FRANKLIN HARDINGE, JR., EXECUTIVE VICE-PRESIDENT, CALIFORNIA SAVINGS & LOAN LEAGUE, BEFORE THE SENATE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS

My name is Franklin Hardinge, Jr., executive vice-president of the California Savings and Loan League. Included in our membership are all but one savings and loan association in the State of California. As of September 30, the assets of all California associations were approximately \$35.5 billion. Federal associations, which are substantially affected by the content of this bill, have approximately \$12 billion of assets in California. Holding companies which are affected also are represented in California League membership with over \$20 billion of assets. Therefore, we have a substantial interest in the outcome of this legislation.

Section 101, *Issuance of Capital Stock by Federal Associations*. The California Savings and Loan League has long been interested in the question of permitting federally chartered associations to have the option of being mutual or of a guarantee stock type. The state-chartered savings and loan business in California has long been organized under the capital stock system, and the results have been self-evident in view of the fact that savings and loan assets in California exceed the assets of any other state in the union and represent 20% of the assets of the whole nation. The California League believes in the principle of capital ownership of corporations and the ability to add to the capital strength of the business through the issuance of capital stock by federal associations will be beneficial to the public. Therefore, we support this first section of the bill which would permit federal associations to organize as or convert to a capital stock type of institution.

The only real problem in connection with the permission of federal associations to become guarantee stock institutions is the conversion formula which would affect the existing federal associations. In a conversion to a guarantee stock institution, the savers may be entitled to acquire without any windfall advantage capital stock which represents all or a portion of the net worth of the federal association. Since there are numerous possibilities as to how this can be accomplished, and no one plan will be fair and equitable in all situations, the Federal Home Loan Bank Board should have broad authority to approve different plans developed.

It must be acknowledged that the present reserves of federal associations have been built up over many years, through the normal operation of the institution where some amounts have been set aside each year out of earnings to establish reserves required by statute or established by a policy of the association. We must also recognize the fact that the savers in federal associations have at all times been given the protection of insurance of accounts. Therefore, they have a completely different interest in the reserves of the federal association than would a stockholder without insurance and the value of whose stock is dependent upon the retained earnings of the corporation. Thus, to preserve the mutual concept and to allow management a choice of either remaining a mutual association or to issue capital stock, windfall profits must be eliminated from any conversion formula.

It is the management of these federal associations which has produced the operat-

ing results over a long period which sometimes involves several management groups in the corporate history of any federal association. General corporate law permits incorporators to receive certain benefits for their entrepreneurship. One way to recognize this principle in a conversion is to establish the right of management to purchase stock up to 20%-30% of that issued to savers. This extra stock will be new capital to strengthen the net worth of the converted association while recognizing the contribution of management in its role of entrepreneur.

General corporate law also gives the right to officers to stock options which recognizes the special contribution of management to the success of the corporate operations. The California League advocates that these principles be clearly enunciated in the legislative history of the federal capital stock legislation so that the Bank Board can give weight to the rights and equities of both savers and management in the approval of any conversion formulas for existing federal associations which wish to become guarantee stock institutions.

The legislative history of this section of the bill should also make clear the obligation of the Federal Home Loan Bank Board to protect the corporation against tender offers by those who would seek to seize the control of a converted federal association. The present management of the federal associations is tried and proved to the supervisory agents of the Federal Home Loan Bank Board. Thus, both the Bank Board and the Federal Savings and Loan Insurance Corporation have a substantial interest in the continuation of such management which has proved its ability and integrity in running federal associations in a matter which is stipulated by law and regulation. The Bank Board, therefore, should be given the encouragement and authority to approve long-term employment contracts, the escrowing of stock distributed to savers, or any other plan which will preserve the quality of management after the conversion as was the case before the conversion.

The Federal Home Loan Bank Board also should maintain control of conversion so as to prevent conversions where clearly the majority of savers and the management do not believe that such conversion would serve in the public interest when it is being motivated by persons whose character and objectives are under some question. Protection should also be given legislatively against law suits brought by persons seeking to force conversion or seeking redress for nonconversion. However, the California League, despite some of the problems that may occur as a result of the passage by Congress of a federal capital stock bill, believes that such problems can be overcome and that the overall benefits of capital stock federals will make this legislation very much in the public interest.

STATEMENT OF MR. RALEIGH W. GREENE, CHAIRMAN, LEGISLATIVE COMMITTEE, NATIONAL LEAGUE OF INSURED SAVINGS & LOAN ASSOCIATIONS

FEDERAL STOCK CHARTERS

We definitely favor the aim of section 101 to vest in the Federal Home Loan Bank Board authority to issue Federal capital stock charters to savings and loan associations. Exhibit B presents for your consideration some proposed statutory language intended to accomplish that aim better by making it clear that a Federal savings and loan association need no longer be solely a mutual thrift institution, as presently provided in section 5(a) of the Home Owners' Loan Act of 1933. In principle, however, the National League supports any provision that will effectively enable the Federal Home Loan Bank Board to issue Federal charters for a permanent stock type of savings and loan association.

In the absence of any other changes in that Act dealing with a stock form of organization, details of circumstances under which an existing savings and loan association could convert to a Federal stock form would be left to be worked out in individual cases within the framework of the provisions of section 5(1) of the Home Owners' Loan Act of 1933.

The National League for almost a decade has supported the concept of Federal stock savings and loan associations as an optional form of organization to complement the mutual charter currently available on a Federal level. As noted in Exhibit A, the stock form of association has many attributes that make it worthy of consideration as an appropriate vehicle for carrying out the functions assigned to savings and loan associations in the public interest. The stock savings and loan association is no untested vehicle. It already works successfully. Twenty-two States authorize it by State law. The National League believes a stock association charter issued by the Federal Home Loan Bank Board would produce an effective form of savings and loan association subject to regulation and supervision by that Board. Obtaining suitable legislation for this purpose was recommended as one of 5 high priority items by the most recent Legislative Conference of the National League held in March 1971.

The National League endorses the 8 favorable points made by Chairman Martin as to a stock form of savings and loan association, summarized as follows:

- Ability to provide additional funds in capital deficit areas through issuance of stock.
- Opportunity to seek capital in equity markets when net savings growth is low.
- The increased reserve base that can be supported from proceeds of sale of stock.
- Forestalling supervisory action by selling stock to maintain a strong net worth position.
- The facilitation of mergers.
- The providing of a Federal form of stock charter to which those seeking to convert from mutual form could repair.
- The thwarting of the danger of losing associations by conversion out of the Federal system that could occur if the moratorium on conversion is lifted before the Federal Home Loan Bank Board obtains authority to issue Federal stock charters.
- Benefits of a faster growth rate, larger long run profit and possibly lower cost ratios.

It also endorses the following 6 advantages set forth by Mr. F. Marion Donahoe of San Francisco, California, formerly Chairman of the National League's Committee on Federal Capital Stock Associations:

- Ability better to market the association's own debt obligations because potential capital from sale of stock underpins the financial backing for the obligations. By this technique, long term capital could be acquired to match long term investments of associations.
- Better key personnel may be attracted by use of stock option and stock purchase plans.
- Stock savings and loan associations operate successfully already. They are authorized in 22 States.
- The stock form of organization has proved successful for other types of financial institutions such as commercial banks and insurance companies, as well as for virtually all other types of corporations.
- The stock form of organization is well understood by the public, legislators, jurists and savings and loan directors from the corporate world.
- The stock form of organization makes it possible to add to the Gross National Product of this country by placing in marketable form evidences of intangible contingent

interests in surplus, undivided profits and reserves. Transactions in stock add to fee income of middlemen and produce tax revenue.

STATEMENT OF JOHN WILLIAM DAVIS, CHAIRMAN OF THE COMMITTEE ON REGULATIONS AND LEGISLATION, CONFERENCE OF FEDERAL SAVINGS & LOAN ASSOCIATIONS BEFORE THE SENATE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS

I am John William Davis, president of Republic Federal Savings and Loan Association of Altadena, California and chairman of the Committee on Legislation and Regulations of the Conference of Federal Savings and Loan Associations, a Los Angeles based organization representing 85 federal mutual associations with assets in excess of \$15 billion in 17 states, principally in California. Republic Federal Savings has \$150 million in assets and is representative of the average sized member of the Conference of Federals. The Conference of Federals is also a staunch affiliate member of the California Savings and Loan League, the National League of Insured Savings Associations, and the United States Savings and Loan League.

It is a privilege to testify before this committee regarding S. 1671, the Housing Institutions Modernization Act. I realize, however, the pressure of time available for testimony. Therefore, in the interest of brevity, the Conference of Federals will confine its remarks solely to Section 101, Issuance of Capital Stock by Federal Associations, and will strongly endorse the statements pertaining to this Act presented Thursday, October 14, before this committee by these three industry leagues.

Briefly, the Conference of Federals strongly supports the concept of capital stock, the option of mutuals to convert to capital stock structure and the corresponding right to remain free of depositor pressures to convert to stock; we unequivocally recognize the equity-ownership interest of the saver-depositor, and believe there are many and diverse conversion plans that can satisfy that interest; and, therefore, we urge that the Federal Home Loan Bank Board be given the necessary powers to approve conversion plans which will provide for the continued stability and viability of the federal savings and loan system rather than encumber the Bill with a conversion formula which would tend to limit or eliminate alternative conversion plans completely acceptable to the public, the industry and in the interest of the depositor-owner.

We wholeheartedly concur with Chairman Martin's statements contained in his letter of September 1 as reprinted in the Congressional Record of September 21, 1971, pointing out how equity capital would provide increased investment for housing, thus furthering the nation's housing goals. The Conference of Federals earnestly believes that the basic reason for capital stock structure is to provide greater accessibility to the money market. Capital stock structure, in addition to the obvious access to the equity market, also provides means to enter the long-term debt market by means of bonds and debentures. Obviously this enhances the flexibility of the savings and loan industry to carry out its function to provide the nation's shelter.

The conversion formula is of primary concern to federal mutual associations who believe that the dual system and the mutual concept are in the public interest. The Conference of Federals is firmly convinced that there are many conversion formulas to satisfy the interests of the depositor-owners, the public and the industry. Ideologically these plans should provide for distribution of stock without cost to depositors of record as of a certain date. However, the resulting windfall to depositors would throw the in-

dustry into a state of chaos, destroy the dual chartering system and decimate the mutual institutions. Let me document this.

The conversion plan of a large western federal association provided for distribution of stock representing the net worth of the association without cost to depositors. The news media prominently announced: "Maybe: A Big Bonus for Some S&L Savers." The article further explained that savers in "federal" mutual institutions stand a chance for a one-time windfall of about \$80 for each \$1,000 in savings. Immediately following this article, which appeared in various forms in other newspapers and national magazines, it was a universal experience of federal association managements to receive inquiries about conversion plans of the association. For the convenience of the committee I am enclosing a copy of this newspaper article and the comments of one of our members regarding the public reaction to this article.

In the September 13, 1971 edition of *Barrens*, a spokesman for this same association acknowledged that he thinks the clamor by savers at other institutions to receive their windfall will result in other conversions.

Obviously we cannot, nor do we wish to, control the contents of our manner of expressing the news. Articles will appear in national magazines and people will author books on "how to get the most for your savings dollars." The proposed cut-off date will be ultimately ineffective to halt the disintermediation of investors who will withdraw savings from converted mutuals and capital stock associations and deposit them in federal mutual institutions where fortune, augmented by harassment to convert, may result in additional windfalls to these sophisticated investors. The net result is the gradual weakening and elimination of the dual chartering system and the concept of mutuality.

As we stated earlier, the Conference of Federals strongly endorses the concept of capital stock, structure and the option for mutuals to convert to capital stock, provided conversion is an option, not a requirement; we believe that the decision to convert must be businesslike and in the best interest of the association, not purchased by offering a windfall to the depositor-owners. We believe that the mutual system would not be preserved if legislation and/or regulations provide for "windfall" distribution of reserves to depositors such as proposed by the above association and contained in the Michigan state law. The federal mutual system has been an effective instrument in contributing to the nation's housing. We call your attention to the fact that of the nation's largest 300 associations over 50% are federal mutuals.

With respect to equity-ownership interests of the depositor-saver, the Conference of Federals unequivocally recognizes this concept. We believe that this equity-ownership interest is best recognized by the elimination of any windfall to either the depositor-owner or to the association employees. We believe the first logical source of new capital is the depositor-owner and the association's employees. The purchase of stock creates an immediate supply of new funds for the housing market and eliminates most of the windfall aspects of conversion; as a result the association will be permitted to determine in a calm businesslike atmosphere, unencumbered by emotional self-interest, whether it should remain mutual or convert to a capital stock structure.

Finally, the Conference of Federals urges that the Federal Home Loan Bank Board be vested with the authority to determine conversion plans which recognize the equity and public interests. The real problem here concerns existing well managed, soundly operating federal mutuals who may or may not need

additional capital at this time and who desire to avoid an unstable business atmosphere. The matter of a conversion formula is complex. In any discussion, it becomes readily apparent that there are many and diverse approaches to accomplish these desired objectives. We believe an attempt to incorporate a conversion formula in the statute would eliminate many conversion plans which could be more equitably tailored to fit the individual circumstance. We urge that the statute and regulations recognize the complexity of conversion, the need for flexibility, and provide for the maximum number of plans so that the interest of the public and depositor-owner may best be served.

In summary, the Conference of Federals strongly supports 1) the issuance of capital stock by federal associations, 2) the option to convert from mutual to capital stock structure provided those federal associations who wish to remain mutual are not coerced to convert by unstable conditions caused by disintermediation, and 3) the vesting in the Federal Home Loan Bank Board of authority to determine conversion plans which appropriately meet the interests of the public and the depositor-owners rather than encumber the statute with a less flexible formula.

The Conference of Federals sincerely appreciates this opportunity to present before your committee our statement on this vital issue. It can be appreciated by the committee, I am sure, that this statement by no means covers all of the attendant problems connected with conversion by an existing federal mutual to a capital stock structure. We have confined our comments to what we feel are the critical considerations.

EVALUATION OF PUBLIC REACTION TO MEDIA ARTICLES PERTAINING TO CONVERSION TO CAPITAL STOCK

(Presented by M. J. D'Anjou, president, First Federal Savings & Loan Association of Burlingame, San Mateo, Calif., annual meeting, May 3, 1971)

Earlier today, very briefly, someone alluded to an article that appeared in one of the Bay Area papers, and the effect that it had. I understand that a similar article appeared in the Los Angeles papers, but was so brief as to be almost nonexistent. The article that appeared in the San Francisco Sunday Examiner had a three column headline. I would like to quote a couple of statements that appeared in that article, and then elaborate on what happened to this institution, and in conversation, to many others in the Bay Area since this was published.

The headline reads as follows: "Maybe: A Big Bonus for Some S&L Savers".

And then very briefly it states: "The bonus depends on a bill in Congress, that gives the federally chartered savings and loan the green light to change into a company with stock holders. All federal associations at present are "mutuals" and as such, they theoretically are owned by the savers. Over the years, these mutual savings and loans built up millions of dollars in reserves—money that could have been paid out in interest but wasn't."

The article later makes reference to the conversion of Citizens by commenting: "Preliminary figures indicate qualifying savers would get \$80 for each \$1,000 in savings," or a bonus of 8%. This statement plus the headline seemingly attracted the most attention of the people in the Bay Area.

Now, gentlemen, we are in an \$82,000,000 institution. This article came out on Sunday. On Monday morning at 8:30 a.m., our switchboard was deluged with phone calls, and I don't use the word "deluged" lightly—I mean deluged.

I went to a luncheon on the following Tuesday for probably 300 people. About 25 to 30% of them were savings customers of

this institution. Granted, we operate primarily in a high-income, sophisticated, knowledgeable, intelligent people area. When I walked in I was deluged, and again I don't use the word lightly, with a minimum of 25 to 30 people who immediately wanted to know when they were going to get their 8% dividend, when they were going to get their \$80.

I stated that this was only a bill that was being proposed in Congress, that such a bill had been proposed before, that Congress at the present time seemed to be in a more favorable mood for passage, and that there probably was a much better chance for its passage than in any previous session of Congress. I then stated that conversion would depend upon whether each federally chartered savings and loan deemed it practical to convert. In one instance I was told in no uncertain terms that, if he were a saver in my institution with a sizable savings account, and we did not convert, he would make damn sure that we did. Now, this individual, who incidentally is a saver in my association, is what I call a not too successful attorney. His office is generally considered to be the Elks Club.

But what I am alluding to is that a conversion program in which the proceeds of the reserves are divided among so-called shareholders truly is unrealistic. There has to be some protection for management, there has to be some protection for continuity of management, and there has to be something better than a 10% maximum for any one person to have as stock in an association. I know of no other corporate entity, financial or otherwise, in which any one person is limited to a maximum of 10% ownership, the figure that has been alluded to in one of the sections of the proposed bill. This is unrealistic. In a sense, it puts you right back into a capital mutuality situation, with no one or no group of people having control.

There has to be some perpetuity of management, particularly good management. I think that the Federal Home Loan Bank Board realizes that they, most of all, do not want opportunists, dissidents coming into this industry and creating a problem for them. It behooves this organization, the Conference of Federals, as well as every other federal association and every other savings and loan trade association in the United States to assist the Federal Home Loan Bank Board in coming out with a fair and equitable

plan for a federal capital stock structure including conversions of federal to capital stock on a basis that would permit continuity of management, continuity of good management. I would be willing for one to let the Federal Home Loan Bank Board from records make a determination of what is good or bad management. A plan must be developed that does not subject the managers, the managing staff, and a good board of directors to this vulnerable position.

[From the San Francisco Examiner & Chronicle, Apr. 25, 1971]

MAYBE: A BIG BONUS FOR SOME S&L SAVERS

(By Jack Miller)

If you have money in a savings and loan association with the word "Federal" in its name, and that money was on deposit last Monday, you stand a chance to get a one-time windfall.

The bonus depends on a bill in Congress that gives federally chartered S&Ls the green light to change into a company with stockholders.

All federal associations at present are "mutuals." As such, they theoretically are owned by the savers. Over the years, these mutual S&Ls built up millions of dollars in reserves—money that could have been paid out in interest but wasn't.

BONANZA NOW

If they convert to a stockholder type of company, these reserves will have to be distributed to someone. Since every saver in each association going back years never could be found, the only fair arrangement is to divide this money among present savers.

But to avoid a sudden rush to get in on a good thing, some date in the past must be used. Otherwise, savers would pull out money like mad from banks and non-federal S&Ls—and this could cause a dangerous run.

That's why authorities set April 19 as the deadline to qualify for the windfall if a federal S&L seeks to convert to a stock operation if the law is passed.

Preston Martin, chairman of the Federal Home Loan Bank Board, pointed this out in testifying for the measure that would permit conversions.

At the same time, Martin emphasized, the board "has no plans at this time" to lift the moratorium on federals switching over to state licensed stock firms.

SILENT ON S.F.

Martin, who also held a press conference in Washington to explain the conversion bill he's pushing, was careful not to mention San Francisco's Citizens Federal Savings & Loan Association.

Citizens has a conversion plan in the hopper that was approved by the State and overwhelmingly by association savers. The plan is now before the board and according to Martin will languish there until the door is opened the federal route via his bill.

F. Marion Donahoe, Citizens' president, has termed his plan "so far the insiders get nothing out of it." Citizens set March 20, 1970, as the cutoff date for the windfall. Preliminary figures indicate qualifying savers would get about \$80 for each \$1000 in savings.

PAST ABUSES

Conversions have been banned since 1963 because officers, directors and friends too often took advantage of the gravy train, leaving the savers licking their chops.

This abuse has made Martin and the rest of the board cautious. That's why the legislation was designed to be "too late" when it was introduced last Monday for anyone to benefit by switching funds into an S&L that could be a conversion candidate.

But Martin still is worried. He's afraid the public may not understand this, that some savers might pick out federal associations like numbers on a roulette wheel when they find out about the bombs.

Yet Martin still may have himself painted in a corner at trying to prevent a scramble to gamble if his bill fails to get through this session.

For some sharp savers may look forward to next year, figuring it will get another go-around with a new cutoff date. This could develop into a new problem if savers decide to gamble on the prospects.

After all, a conversion bill has been introduced in the last four sessions of Congress. Each failed.

TOP BACKING

Proponents feel chances of passage are better this time than ever since it has support from the industry's two nationwide trade organizations—and that means powerful lobbying efforts.

And, for the first time, it also has the blessings of the Administration or Martin wouldn't be in there pitching for the bill.

HOUSE OF REPRESENTATIVES—Tuesday, October 18, 1971

The House met at 12 o'clock noon.

The Chaplain, Rev. Edward G. Latch, D.D., offered the following prayer:

Rest in the Lord and wait patiently for Him.—Psalms 37:7.

O God, our Father, whose kingdom is forever and whose power is at all times available to the children of men, at the opening of another week we wait upon Thee with reverent minds and responsive hearts. We would rest our weary and our worried souls in Thee and from Thee receive strength for our tasks, wisdom for our ways, and the will to do Thy will.

In this world beset by bitterness, dotted by disagreements, and hurt by hatred, help us to be builders of bridges across the chasms which separate classes and races that we may play our part in making our country a united nation, under Thee, with liberty and justice for all.

In the spirit of Christ we pray. Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House his approval thereof.

Without objection, the Journal stands approved.

There was no objection.

MESSAGE FROM THE SENATE

A message from the Senate by Mr. Sparrow, one of its clerks, announced that the Senate disagrees to the amendment of the House to the bill (S. 1116) entitled "An act to require the protection, management, and control of wild free-roaming horses and burros on public lands," requests a conference with the House on the disagreeing votes of the two Houses thereon, and appoints Mr. JACKSON, Mr. CHURCH, Mr. METCALF, Mr.

JORDAN of Idaho, and Mr. HATFIELD to be the conferees on the part of the Senate.

CONSENT CALENDAR

The SPEAKER. This is Consent Calendar day. The Clerk will call the first bill on the Consent Calendar.

AUTHORIZING THE ESTABLISHMENT OF A NATIONAL GUARD UNIT IN THE VIRGIN ISLANDS

The Clerk called the bill (H.R. 3817) to amend titles 10 and 32, United States Code, to authorize the establishment of a National Guard for the Virgin Islands.

The SPEAKER. Is there objection to the present consideration of the bill?

Mr. GROSS. Mr. Speaker, reserving the right to object, I would like to ask a question or two of someone who is knowledgeable concerning this bill.